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#### PSYCHOSIS IN HENRIK IBSEN'S HEDDA GABLER: A PSYCHOANALYTIC CRITICISM

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#### **ABSTRACT:**

Borderline personality disorder is a personality disorder marked by an ongoing pattern of varying moods, self-image, and behaviour. These symptoms often result in impulsive actions and problems in relationships. In fact, according to Psychology Today, from an outside perspective, a person with discouraged borderline might look a bit like someone with dependent personality disorder. This person displays signs of co-dependence in most relationships in life. People with borderline personality disorder may experience intense episodes of anger, depression, and anxiety that can last from a few hours to days. The study is focused in analysing Hedda's psychosis in how she behaves, thinks, and feels. Hedda, who is one of the major characters in the play, suffers from this personality disorder. The purpose of the study is to understand that Hedda suffers from Psychosis borderline personality disorder. The writers choose to use it because it is very closest to apply in Hedda's personality. In relation with the title and the background of the study, this article is formulated to answer the question on: What are the characteristics of Psychosis that occur in Henrik Ibsen's Hedda Gabler? and How does the effect of psychosis in Henrik Ibsen's Hedda Gabler? The finding serves that the existence of psychosis phenomenon is proved after the analysis is conducted. The phenomenon strengthen writer's claim that the work of Henrik Ibsen's was inspired by the condition of society in the period of the play creation, especially that of experienced by middle class society.

#### INTRODUCTION

Psychological approach is an attempt to study someone's personality, not only on how they build their personality but also how the personality develops (Hurlock, 1980: 2). Psychology is often described as the study of mental processes, or the mind, and behavior. Indeed many general texts in psychology are often deliberately sub-titled in such a manner as to high light the full scope of the discipline. Mental processes, however, are less readily observable than openly available behavior (Bell, 2002). Therefore, Adib Sofia (2003:128) states about psychology on literature that the theories of psychological condition from any psychologist or anyone who expert and competent in this, may be used to analyze the psychological condition of the subject in the research. Psychological approach helps to look into the characters of someone. By psychological approach we can understand the psychological condition in the character.

A personality disorder is a type of mental disorder in which you have a rigid and unhealthy pattern of thinking, functioning and behaving. A person with a personality disorder has trouble perceiving and relating to situations and people. This causes significant problems and limitations in relationships, social activities, work and school. Common to all personality disorders is a long-term pattern of behavior and inner experience that differs significantly from what is expected. The pattern of

experience and behavior begins by late adolescence or early adulthood, and causes distress or problems in functioning. There are 10 specific types of personality disorders (such as borderline personality disorder).

According to World Health Organization, (1992), There are 10 specific personality disorders that are grouped into three categories called "clusters".

#### Cluster A: odd or eccentric behavior

Paranoid personality disorder: a pattern of distrust and suspiciousness where others' motives are seen as mean or spiteful.

Schizoid personality disorder: a pattern of detachment from social relationships and a limited range of emotional expression.

Schizotypal personality disorder: a pattern of acute discomfort in close relationships, distortions in thinking or perception, and eccentric behavior.

### 2. Cluster B: dramatic, emotional or erratic behavior

Antisocial personality disorder: a pattern of disregarding or violating the rights of others.

Borderline personality disorder: a pattern of instability in personal relationships, emotional response, self-image and Psychosis.

Histrionic personality disorder: a pattern of excessive emotion and attention seeking.

Narcissistic personality disorder: a pattern of need for admiration and lack of empathy for others.

#### 3. Cluster C: anxious or fearful behavior

Avoidant personality disorder: a pattern of social inhibition, feelings of inadequacy and extreme sensitivity to criticism.

Dependent personality disorder: a pattern of needing to be taken care of and submissive and clingy behavior.

Obsessive-compulsive personality disorder: a pattern of preoccupation with orderliness, perfectionism and control.

#### THEORETICAL FRAMEWORK

#### Borderline Personality Disorder (BPD)

Borderline personality disorder is a severe mental health condition characterized by emotional instability, impulsive and self-damaging behaviors, and stormy interpersonal relationships (Beatson & Rao, 2015). This disorder heavily taxes the mental health care system and results in high personal, economic, and societal costs (Corrigan, Druss, & Perlick, 2014). Despite the pressing need to provide treatment for individuals with this disorder, clinicians may hesitate to do so due to discomfort working with the high-risk behaviors and intense interpersonal and emotional dysregulation typical of those with the disorder. These emotions are experienced as extremely intense, with individual reporting heightened sensitivity and hyper vigilance to both their internal and external realities, often displayed by behavioral Psychosis (Garrett, Stone, & Turkington, 2006)

The following are signs that professionals look for when attempting to diagnose Borderline personality disorder or the discouraged borderline subtype. These are considered to be impairments in personality functioning.

- Impairments in self-functioning. These types of impairments might include an unstable or poor self-image, excessive self-criticism, chronic feelings of emptiness, and stress-induced dissociative states.
- Impairments in interpersonal functioning. These types of impairments might include decreased levels of empathy, which can manifest as a lowered ability to understand the position of others, a heightened and dramatic sensitivity to perceived criticism, or rejection and black-and-white thinking even regarding people most people are seen as good or bad.

There are other signs that distinguish a person with borderline disorder from others. Some of these signs and symptoms might include:

- Unstable emotional experiences
- Moodiness
- Easily aroused emotions
- Increased nervousness, tension, worry, panic, or general anxiety
- Fearfulness and uncertainty
- Discomfort with uncertainty
- A fear of losing control
- A fear of rejection
- Separation anxiety
- Depressed or hopeless feelings
- Shame
- Suicidal thoughts or behaviors
- Psychosis
- Difficulty creating or sticking to plans
- Distress-induced urgency
- Dangerous risk-taking behavior without regard for consequences
- Hostility, especially in relation to perceived criticism or rejection

# **Psychosis**

Psychosis can occur at any time in life, but the onset or beginning of psychosis, often referred to as first episode psychosis usually occurs on average in late adolescence or early adulthood(Schrimpf, Aggarwal, & Lauriello, 2018). For men, the age of onset may be a little earlier than women, on average, men experience symptoms of psychosis for the first time up to three to five years before women (Woodward et al., 2014). The presence of a psychosis disorder will disrupt the development of adolescents and early adults at an important stage of development (Fusar-Poli, 2012) In this range of age, someone will start his career and try to achieve achievement, thus, psychosis disorders will certainly hinder career achievements and accomplishments and will have an impact on decreasing quality of life. In addition, psychosis disorders also limit one's ability to carry out their functions in

daily life and only individuals who are able to face, adapt and grow in overcoming these difficulties can rise and recover from the disorder; this ability to rise is known as resilience (Reavley & Jorm, 2011)

Furthermore, there are psychosocial problems that arise due to the onset of psychosis. These psychosocial problems will become a burden, cause confusion, fear and suffering due to experience of stigma, shame, isolation, loss of mastery and control, impairment of self-esteem, education or work to be disturbed, and often lead to a decrease in a person's ability to be fully involved in treatment decisions (Yung et al., 2005). In addition to having an impact on patients, psychosis (such as schizophrenia) also causes deep pain for the family and becomes a very heavy stressor that must be borne by the family.

Some experts and researchers mention that two important issues related to the first episode of psychosis are the timing of intervention and the quality of intervention. The time of intervention is also called the duration of untreated psychosis or the delay in getting effective treatment for psychosis, while the quality of the intervention relates to the provision of comprehensive health services comprehensively in the treatment phase. In general, first episode of psychosis is defined as the span of time between the onset of psychotic symptoms (such as hearing voices, suspicion or paranoid) until the start of antipsychotic treatment in the first episode of psychosis. Some research results show that first episode of psychosis is the main target of the initial intervention for psychotic disorders. The faster the intervention can prevent psychosis and can shorten first episode of psychosis. The shortness of first episode of psychosis will improve outcomes in psychotic disorders, while the duration of it is related to the length of remission of symptoms after treatment has begun, the cure rate will be lower, most likely to relapse and the outcome of the overall treatment process will be worse. Research conducted by Cadario et al., (2012) also showed that the duration of the condition was associated with negative symptoms. This is associated with poor quality of life, social function and performance of patients with psychosis. Thus, if it is getting longer or too late to get medical assistance, it will prolong the suffering of people with psychosis.

Psychosis is a behavior of which people will often do something without thinking the consequences. It is personality disorder that causes sufferers experiencing instability of mood which affects the individuals think, behave, and feel to others. Psychosis also has some types, there are unstable mood, risk taking behavior and manipulative of others. The effect from that disorder is when a person may manifest one of three quite different characteristics: 1. Acting momentarily, and in a way that is inconsistent with the prevailing behavior. 2. Generally acting, or being prone to act, with little apparent intellectual consideration of the appropriateness or consequences of so acting. 3. Generally acting, or being prone to act, as if driven or compelled to act in a particular kind of way (Schothorst, Emck, & van Engeland, 2006)

One of subcategories of borderline personality disorder is considered as psychosis. It is characterized by a pervasive pattern of instability in the regulation of emotion, interpersonal relationships, self-image, and impulse control. The term "Borderline Personality Disorder" was initially suggested in the 1930s by clinicians to identify a group of clients who did not fit into the usual categorizations of "neurotic", including what we now refer to as anxiety and depressive disorders, or "psychotic",

including what we now refer to as bipolar disorder and schizophrenia (Courtney-Seidler, Klein, & Miller, 2013).

"Psychosis" is a complex concept. It involves an impulse, the behavioral expression that impulse, and the situation in which both occur (McCarthy, 2014). Holtzman et al.,( 2013) has differentiated between two types of Psychosis, emphasizing the social evaluation or appraisal of the act: "functional Psychosis," the tendency to act without forethought where this tendency is optimal or beneficial; and "dysfunctional Psychosis", the tendency to act with absence of forethought when this tendency could be a source of problems. Whether an act is "optimal or beneficial" or "a source of problems" is a function of the situation, both social and physical, within which it occurs (Fusar-Poli, 2012)

Therefore, "Psychosis" has not been comprehensively, clearly, or even consistently defined (Bevilacqua & Goldman, 2013). Most definitions, however, contrast impulsive behavior to planned behavior: "We may define the term impulse for our purposes as the generally unpremeditated welling-up of a drive toward some action that usually has the qualities of hastiness, lack of deliberation, and impetuosity" (Eder, 2011). A review of Webster's Third New International Dictionary (1976) indicates that in common usage, in order to be called "impulsive" a person may manifest one of three quite different characteristics:

- 1. Acting momentarily, and in a way that is inconsistent with the prevailing behavior (i.e., manifesting behavior that can be described as whimsical, capricious, and even unpredictable); in this instance, behavior seems to represent a brief pulse or surge of energy, rather than a steady, consistent drive.
- 2. Generally acting, or being prone to act, with little apparent intellectual consideration of the appropriateness or consequences of so acting (i.e., manifesting behavior that could be described as spontaneous, impetuous, or rash).
- 3. Generally acting, or being prone to act, as if driven or compelled to act in a particular kind of way (i.e., manifesting behavior that appears to be more reflexive than volitional, and manifesting what might be called an "irresistible impulse") (Logan, Schachar, & Tannock, 1997)

There are three types and effects of Psychosis borderline personality disorder, such as:

#### Unstable mood

Unstable mood is people who might be react unpredictably to events and situations. They often suffer from being happy to sad because of some reason. Someone in unstable mood may be upset or a little angry at something. Sometimes, people with unstable mood usually have sensitive feeling. According to Putman (2008), mood disorders, as a brain dysfunction, affect many areas of brain function other that mood. So it is with unstable mood disorders — begin by establishing that there is some type of mood problem, then move on quickly to more specific and less subjective symptoms.

# 2. Highly manipulative of others

According to Psychology Today, manipulation is a way to covertly influence someone with indirect, deceptive, or abusive tactics. Manipulation may seem benign or even friendly or flattering, as if the person has highest concern in mind, but in reality it is to achieve an ulterior motive. People, who suffer from this, as if, may control someone's life. They think that they have power in other's life.

# 3. Risk-taking behavior

According to Trimpop (1994), risk-taking behavior is defined as any consciously or non-consciously controlled behavior with a perceived uncertainty about its outcome, and about its possible benefits, or costs for the physical, economic or psycho-social well-being of oneself or others. People, with risk-taking behavior, usually do not think clearly about the impacts of what they have done.

#### DISCUSSION

#### A. Characteristic of Psychosis

In this chapter, the writer discusses the topic of the study. Thus, the writer analyzes the characteristics and the effect of psychosis in Henrik Ibsen's Hedda Gabler. Based on the literary review in the previous chapter, the discussion of the research can be stated as the following:

There are three characteristics of psychosis that is occurs in Hedda Gabler as a main character in the drama, as a tricky, powerful and pretender.

#### 1. Tricky

Hedda is a tricky woman, she is conflict maker and see people struggle in the awkward situations that she has created. For example in ACT II

She wants to sit between Mrs.Elvsted and Lovborg then she has a chance between them. It symbolizes Hedda's need to be involved with everything that happens. If she was sitting in the middle she wouldn't be able to create so much tension in the situation as she does sitting in the middle. It can see from the following dialogue:

MRS. ELVSTED: [Takes a chair and is about to seat herself at his side.] Oh, how nice it is here!

HEDDA.: No, thank you, my little Thea! Not there! You'll be good enough to come over here to me. I will sit between you.

MRS. ELVSTED: Yes, just as you please. [She goes round the table and seats herself on the sofa on HEDDA'S right.

LOVBORG re-seats himself on his chair.

LOVBORG. [After a short pause, to HEDDA.] Is not she lovely to look at? (Ibsen, 1890:76)

Hedda persuades Lovborg to kill herself indirectly. She gives him

a pistol to use it beautifully in Lovborg's desperation of losing his manuscript.

Then Hedda will be safe from his coming back in her life. The proof is in the following quotation HEDDA.

No, wait! I must give you a memento to take with you. [She goes to the writing-table and opens the drawer and the pistol-case; then returns to LOVBORG with one of the pistols.

LOVBORG.

[Looks at her.] This? Is this the memento?

HEDDA.

[Nodding slowly.] Do you recognise it? It was aimed at you once.

LOVBORG.

You should have used it then.

HEDDA.

Take it--and do you use it now.

LOVBORG.

[Puts the pistol in his breast pocket.] Thanks!

HEDDA.

And beautifully, Eilert Lovborg. Promise me that! (lbsen, 1890:113)

#### 2. Powerful

Hedda is a woman who is strong, brazen, and powerful, yet is determined to live her life through the context of the society around her. In Act Two, Hedda's lust for power. Not power in a political sense, but a much more personal power. This is why she is so amused by pistols; they give her the power to destroy life. With a gun pointed at a person, someone hold that person's life directly under our control. This is exactly her goal in the opening scene of Act Two between her and Judge Brack. She desires to feel that she has complete control over someone or something. This explanation can be seen in the quotation below:

HEDDA, dressed to receive callers, is alone in the room. She stands

by the open glass door, loading a

revolver. The fellow to it lies in an open pistol-case on the writingtable.

HEDDA.

[Looks down the garden, and calls:] So you are here again, Judge!

BRACK.

[Is heard calling from a distance.] As you see, Mrs. Tesman!

HEDDA.

[Raises the pistol and points.] Now I'll shoot you, Judge Brack!

BRACK.

[Calling unseen.] No, no, no! Don't stand aiming at me!

HEDDA.

This is what comes of sneaking in by the back way. (7) [She fires.

BRACK.

[Nearer.] Are you out of your senses---! (Ibsen, 1890:44)

HEDDA.

Yes, I have. I want for once in my life to have power to mould a

human destiny.

MRS. ELVSTED.

Have you not the power?

HEDDA.

I have not--and have never had it.

MRS. ELVSTED.

Not your husband's?

HEDDA.

Do you think that is worth the trouble? Oh, if you could only

understand how poor I am. And fate has made

you so rich! [Clasps her passionately in her arms.] I think I must

burn your hair off after all.

MRS. ELVSTED.

Let me go! Let me go! I am afraid of you, Hedda!

(Ibsen, 1890:85)

# 3. Pretender

Lovborg comes in George Tesman's house and tells that the manuscript can never appear anymore. He had torn into a thousand pieces. At the same time Hedda shows her curiously and looks at him anxiously but the fact is

Hedda had burn the manuscript without their known. It can be seen from the following dialogue:

**HFDDA** 

[Looks anxiously at him.] Yes, the manuscript---?

MRS. ELVSTED.

Where is it?

LOVBORG.

The manuscript---. Well then--I have torn the manuscript into a

thousand pieces.

MRS. ELVSTED.

[Shrieks ]Oh no, no---!

HEDDA.

[Involuntarily.] But that's not---

LOVBORG.

[Looks at her.] Not true, you think?

**HEDDA** 

[Collecting herself.] Oh well, of course--since you say so. But it

sounded so improbable ---

LOVBORG.

It is true, all the same.

(Ibsen, 1890:109)

#### B. Effect of Psychosis

There are three effect of Psychosis that is occurs in Hedda Gabler as a main character in the drama. The effects are unstable mood, highly manipulative of others and risk-taking behavior.

#### 1. Unstable mood

Hedda is a woman with unstable mood. She can be happy and can be sad all of a sudden. Her emotion is unpredictable. Sometimes, she becomes a kind woman but at the same time she can be so angry. HEDDA. Yes, rely upon e. Just you go in and have a sleep in the meantime. (Ibsen, 2010:90)

In the quotation above Hedda shows her kindness to Mrs. Elvsted. She orders Mrs. Elvsted to sleep in her room while they are waiting for Lovborg. Sometimes, he is very cared to her. She can be good to others but rather be angry with small things she does not like. The proof is in the following quotation: HEDDA.

Do you think that is worth the trouble? Oh, if you could only understand how poor I am. And fate has made you so rich!

[Clasps her passionately in her arms.] I think I must burn your hair off after all. (Ibsen, 2010:85) Hedda is very angry at the time when she answers Mrs.Elvsted's question. Actually, Mrs.Elvsted only asks her about why she does not have the power but the answer that Hedda says makes her scared. She says that she will burn her hair for she gets jealous she has succeeded in the work with Lovborg. Hedda brings her mind too serious to the conversation. In spite of it, she still cannot maintain her anger.

### 2. Highly manipulative of others

Hedda is a famous as a cold-hearted and manipulative woman. She despises being Tesman's wife and manipulates people for no apparent reason except for her own personal gain. She manipulates people not out of total hatred, but for the satisfaction of knowing that she has some control over someone else's life. This explanation can be seen in the quotation below: HEDDA.

Whether I might not get Tesman to go into politics. I mean. (Ibsen, 2004:62)

Hedda is planning to put her husband into politics. While she is talking about it with Judge Brack, she says that what she tries is because she seems like bored with Tesman. She thinks that she can do as what she wants even if it is to meddle in her husband's choice of life. Hedda never thinks about Tesman and she only thinks about herself.

#### 3. Risk-taking behavior

Before going to suicide, Hedda does mistakes without noticing the consequences. She plays a pistol which sets on pointing at Judge Brack, burns all over pieces of Lovborg's work, and persuades Lovborg to die in beautiful condition with the gun she gives to him.

#### HEDDA.

[Raises the pistol and points.] Now, I'll shoot you. Judge Brack! (Ibsen, 2010:51)

It can be seen above that Hedda likes something dangerous such as, playing with a gun that is supposed to be forbidden. She directs it deliberately toward Judge Brack who is behind Hedda's room. She almost wounds him but, it misses out. It does not stop only there, she makes Lovborg and Mrs. Elvsted's separate. Hedda burns their last work into pieces. It is proved in below quotation: HEDDA.

[Throws one of the quires into the fire and whispers herself.] Now I'm burning your child, Thea!—Burning it, curly locks! [Throwing one or two more quires into the stove.] Your child and Eilert Lovborg's. [Throws the rest in.] I am burning—I am burning your child. (Ibsen, 2010:110)

In quotation above it shows that how Hedda dislikes their success in producing the work. So, she burns all pieces of it little by little. She is so audacious doing such thing without thinking what the effects for Lovborg and Mrs. Elvsted. She makes Lovborg feels guilty because he thinks the script loses due to him. Hedda persuades him to die with giving her pistol. The proof is in below:

HEDDA.

No. wait! I must give you a memento to take with you.

[She goes to writing-table and opens the drawer and the pistol- case; then turns to Lovborg with one of the pistols.]

(lbsen, 2010:109)

It can be seen in the quotation above Hedda gives him a memento which is as a gift. Indirectly, she intends to make him die with the pistol which she gives. It is because she wants he dies in beautiful condition. Hedda thinks what she does is good for him. But, it causes to his life is worse, which leads him die in miserable death.

#### CONCLUSION

Hedda Gabler is an interesting drama. This drama tells about Hedda, the woman as a wife. She is the daughter of General Gabler, married George Tesman out of Psychosis. Hedda as the main character in Hedda Gabler is described as a woman with the characteristics and the effect of her Psychosis such as unstable mood, highly manipulative of others and risk-taking behavior. Hedda gets an impulse because of the condition among her.

# **BIBLIOGRAPHY:**

Beatson, J., & Rao, S. (2015). Psychotherapy for borderline personality disorder. Australasian Psychiatry. https://doi.org/10.1177/1039856214555531

Bevilacqua, L., & Goldman, D. (2013). Genetics of impulsive behaviour. Philosophical Transactions of the Royal Society B: Biological Sciences. https://doi.org/10.1098/rstb.2012.0380

Cadario, E., Stanton, J., Nicholls, P., Crengle, S., Wouldes, T., Gillard, M., & Merry, S. N. (2012). A qualitative investigation of first-episode psychosis in adolescents. Clinical Child Psychology and Psychiatry. https://doi.org/10.1177/1359104510391860

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. Psychological Science in the Public Interest, Supplement. https://doi.org/10.1177/1529100614531398

Courtney-Seidler, E. A., Klein, D., & Miller, A. L. (2013). Borderline Personality Disorder in Adolescents. Clinical Psychology: Science and Practice. https://doi.org/10.1111/cpsp.12051

Eder, A. B. (2011). Control of impulsive emotional behaviour through implementation intentions. Cognition and Emotion. https://doi.org/10.1080/02699931.2010.527493

Fusar-Poli, P. (2012). Predicting Psychosis. Archives of General Psychiatry. https://doi.org/10.1001/archgenpsychiatry.2011.1472

Garrett, M., Stone, D., & Turkington, D. (2006). Normalizing psychotic symptoms. Psychology and Psychotherapy: Theory, Research and Practice. https://doi.org/10.1348/147608306X96947

Holtzman, C. W., Trotman, H. D., Goulding, S. M., Ryan, A. T., MacDonald, A. N., Shapiro, D. I., ... Walker, E. F. (2013). Stress and neurodevelopmental processes in the emergence of psychosis. Neuroscience. https://doi.org/10.1016/j.neuroscience.2012.12.017

Logan, G. D., Schachar, R. J., & Tannock, R. (1997). Impulsivity and inhibitory control. Psychological Science. https://doi.org/10.1111/j.1467-9280.1997.tb00545.x

McCarthy, J. B. (2014). Contemporary views of psychotic disorders. In Psychosis in Childhood and Adolescence. https://doi.org/10.4324/9780203569207

Reavley, N. J., & Jorm, A. F. (2011). Recognition of mental disorders and beliefs about treatment and outcome: Findings from an Australian National Survey of Mental Health Literacy and Stigma. Australian and New Zealand Journal of Psychiatry. https://doi.org/10.3109/00048674.2011.621060

Schothorst, P. F., Emck, C., & van Engeland, H. (2006). Characteristics of early psychosis. Comprehensive Psychiatry. https://doi.org/10.1016/j.comppsych.2006.03.003

Woodward, T. S., Jung, K., Hwang, H., Yin, J., Taylor, L., Menon, M., ... Erickson, D. (2014). Symptom dimensions of the psychotic symptom rating scales in psychosis: A multisite study. Schizophrenia Bulletin. https://doi.org/10.1093/schbul/sbu014

World Health Organization. (1992). The ICD-10 Classification of Mental and Behavioural Disorders. Clinical description and diagnostic guidelines. International Classification. https://doi.org/10.1002/1520-6505(2000)9:5<201::AID-EVAN2>3.3.CO;2-P

Yung, A. R., Yuen, H. P., McGorry, P. D., Phillips, L. J., Kelly, D., Dell'Olio, M., ... Buckby, J. (2005). Mapping the onset of psychosis: The Comprehensive Assessment of At-Risk Mental States. Australian and New Zealand Journal of Psychiatry. https://doi.org/10.1111/j.1440-1614.2005.01714.x

# NÁVRH POSTUPU RIADENIA FINANČNÝCH RIZÍK V PODMIENKACH MALÉHO A STREDNÉHO PODNIKANIA

# Daniel BREZINA\*, Matej MASÁR\*

Design process of financial risk management focused on small and medium-sized enterprises

#### **ABSTRACT**

The business environment is influenced by the many changes that may affect the business. Competitiveness and maintain enterprises position in the industry is the main role of each small and medium-sized enterprises. It is necessary to get financial health of each enterprise. The long-term trend in financial management becomes the integration of risk management elements into the financial management environment. The aim of the paper is to design and describe financial risk management process which is designed. This model is created in the conditions of small and medium enterprises in the Slovak Republic.

**Keywords:** risk, financial risk, risk management, small medium-sized enterprises, process

JEL Classification: G32, M21, M41

### Úvod

V súčasnosti, čoraz viac narastá význam termínu spoločenská zodpovednosť. Súčasťou nej je i povinnosť podniku vystupovať voči svojím partnerom a ostatným subjektom zodpovedne a dodržiavať pravidlá podnikania. Podniky čoraz viac merajú a hodnotia svoju výkonnosť, ale i výkonnosť svojich partnerov pričom využívajú i rôzne nástroje a metódy finančnej diagnostiky. Veľmi podstatný je i výber správnych a kľúčových finančných ukazovateľov, ktoré majú pre podnik požadovaný stupeň výpovednej hodnoty a dokážu priniesť relevantné informácie o finančnom zdraví v podniku, či partnerov.

Práve finančná diagnostika sa najčastejšie vykonáva v podmienkach riadenia finančných rizík v podniku. Na základe rozličných nástrojov finančnej analýzy, ktorá dokáže spoľahlivo odhaliť slabé a silné miesta podniku. Získané informácie je podnik schopný využiť. Výhodou využitia nástrojov finančných analýz ex-post a ex-ante je ich schopnosť odzrkadľovať rôzne anomálie v stave a vo vývoji podniku, indikujúcich vznik krízy, prípadne vznik problémov, ktoré môžu značne ohroziť existenciu samotného podniku.

Jedným z prvkov finančnej diagnostiky je i dosahovanie požadovaného finančného zdravia podniku, ktoré sa dá zjednodušene definovať ako závislosť medzi úspešnosťou podniku a výkonnosťou daného podniku. Dosahovanie čo najlepšieho stupňa finančného zdravia sa tak stáva prvkom, ktorý by mal byť implementovaný do stratégie a primárnych cieľov každého podniku.

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Ak je podnik finančne zdravý, dokáže zabezpečovať plnohodnotne jednotlivé svoje funkcie. Sledovanie finančného zdravia podnikateľských subjektov je neoddeliteľnou súčasťou riadenia podniku a integrálnou súčasťou riadenia podnikateľských rizík. Pre zjednodušenie sledovania rizikových faktorov je možné využiť poloautomatizované modely finančnej diagnostiky, ktoré pri pravidelnom vyhodnocovaní odhalia aj mäkké signály zmien v podnikateľskej činnosti.

Príspevok popisuje navrhnutý postup riadenia finančných rizík v podniku s využitím základných finančných výkazov, výsledkom ktorého je posúdenie finančného zdravia podniku a vhodné riadenie finančných rizík. Príspevok sa venuje i možnostiam aplikácie navrhovaného postupu riadenia finančných rizík podniku.

# 1 Teoretické východiska a aktuálny stav problematiky riadenia finančných rizík

Ľudia žijúci v spoločnosti konajú podľa určitých spoločenských pravidiel, pričom hodnotia nielen svoje konanie, ale zodpovedajú aj za konanie iných ľudí. Z historického a súčasného pohľadu je definovanie termínu riziko nejednoznačné. Vzhľadom, že riziko ovplyvňuje veľa ľudských činností, existujú v súčasnosti rôzne pohľady na chápanie rizika.

Riziko charakterizuje konkrétnu situáciu, ktorej vznik možno predpokladať. Nepredstavuje proces, ale vzťah systému, ktorý je schopný zapríčiniť významné narušenie plánu, prípadne celého systému a ohroziť jeho ciele, funkcie a plánované procesy. S rastúcim počtom variantných riešení narastá aj miera rizika [14,29].

Podľa Bitza je riziko chápané ako neistota predstavujúca nebezpečenstvo budúceho vývoja, ktoré sa prejaví negatívnym odklonom finančno-ekonomickej cieľovej veličiny od referenčnej hodnoty [2,642]. V rozhodovacích procesoch sa riziko objavuje vo forme situačného faktora v rôznych podobách:

- riziko ako konkrétna neistá situácia vychádzajúca z nedostatočných informácií o stave rozhodujúcich činiteľov interného a externého prostredia,
- riziko ako možnosť odlišnosti konečného výsledku od očakávaného cieľa [7,47].

V malých a stredných podnikoch sa vyskytujú riziká rôzneho charakteru. Veľké problémy predstavujú finančné riziká, ktoré sú spojené s neúmerným zadlžovaním a hrozbou platobnej neschopnosti. Hlavné hrozby v oblasti financií patria medzi externé riziká.

Existujú rôzne klasifikácie a kvantifikácie finančných rizík. Jedno z najlepších delení uvádza vo svojej monografií český ekonóm Prof. Jozef Jílek, ktorý rozdelil finančné riziká do 5 nasledujúcich kategórií:

- 1. Úverové riziko (credit risk) riziko straty spôsobenej zlyhaním partnera tým, že nesplnil svoje záväzky vyplývajúce z uzatvorenej zmluvy, čím spôsobil držiteľovi pohľadávky stratu. Úverové riziko sa delí do 4 kategórií:
- priame úverové riziko (direct credit risk),
- riziko úverových ekvivalentov (credit equivalent exposure),
- riziko vyrovnania (settlement risk),
- riziko úverovej angažovanosti (credit exposure risk).
- 2. Trhové riziko (market risk) riziko straty pri zmenách trhových cien, hodnôt finančných nástrojov a komoditných nástrojov v dôsledku nepriaznivých zmien trhových podmienok. Trhové

riziko sa dá merať v absolútnom vyjadrení (množstvom jednotiek danej meny) alebo v relatívnom vyjadrení (porovnanie s trhovým indexom).

Trhové riziko možno rozdeliť:

- úrokové riziko (interest rate risk),
- akciové riziko (equity risk),
- komoditné riziko (commodity risk),
- menové (devízové) riziko (currency risk, foreign exchange risk, FX risk),
- korelačné riziko (correlation risk).
- 3. Riziko likvidity (liquidity risk) riziko predstavujúce stav, keď spoločnosť nemá k dispozícií finančný kapitál na včasné plnenie záväzkov voči veriteľom.

Riziko likvidity delíme na 2 kategórie rizík:

- riziko trhovej likvidity (market liquidity risk),
- riziko financovania (funding risk).
- 4. Operačné riziko (operational risk) riziko finančných strát zapríčinených zlyhaním procesov, ľudských činiteľov a prípadnou nevhodnou a chybnou aplikáciou vnútorných procesov.

Operačné riziko delíme do 3 kategórií:

- transakčné riziko (transaction risk, execution risk),
- riziko operačného riadenia (operation control risk),
- riziko systémov podpory (systems risk).
- 5. Obchodné riziko (business risk) riziko spojené s dopytom v pomere k výške predaja a cenových rizík z hľadiska dosahovaných predajných cien.

Podľa Jílka sa obchodné riziko člení do 7 kategórií:

- právne riziko (legal risk),
- riziko zmeny úverového hodnotenia (credit rating risk),
- riziko mena (reputation risk),
- daňové riziko (tax risk),
- riziko menovej konvertability (currency convertibility risk),
- riziko pohromy (disaster risk),
- regulačné riziko (regulatory risk) [5,16].

Finančný stav podnikov je úzko prepojený so všetkými zložkami podniku. Vzhľadom na túto skutočnosť má riziko súvisiace s niektorou zložkou podniku priamy alebo nepriamy dopad na celkovú finančnú stránku podniku.

Manažéri v rôznych hospodárskych subjektoch nielen v podmienkach Slovenskej republiky, ale aj vo svete vykonávajú potrebné kroky k znižovaniu negatívnych dopadov rizika. Medzi hlavné aktivity na zníženie finančných rizík možno zaradiť:

• Aktivity orientované na oslabenie, resp. elimináciu príčin vzniku rizika – patria sem činností, slúžiace na zníženie pravdepodobnosti výskytu rizikových situácií. Medzi tieto ofenzívne aktivity patria napr. transfer rizika, využitie sily a tzv. vertikálna integrácia.

• Aktivity zamerané na znižovanie negatívnych dopadov rizika – súčasťou týchto aktivít sú činnosti, ktoré sa sústreďujú predovšetkým na znižovanie nepriaznivých dosahov výskytu určitých situácií. Okrem ovplyvňovania vlastných príčin vzniku finančného rizika, je dôležité, aby účinky vzniku rizika boli znížené na ekonomicky prijateľnú úroveň [12,248].

V súčasnosti je riadenie rizík nevyhnutnou súčasťou postupu riadenia aktivít aktívnych účastníkov finančného trhu a možno ich definovať ako postup pozostávajúci z čiastkových postupov, etáp riadenia alebo merania rizika, na základe ktorých možno zadefinovať víziu a všeobecnú stratégiu podnikateľského subjektu pre ďalší rozhodovací postup týkajúci sa realizácie budúcich rizikových operácií. Na základe tejto definície existujú 4 základné okruhy v postupe riadenia rizík:

- 1. meranie a monitorovanie stavu rizikových pozícií realizovaných transakcií, prípadne monitorovanie rizikovej pozície celkového portfólia, odhad potenciálnych strát, vyplývajúcich z realizovaných transakcií, zmien hodnoty portfólia,
- 2. získanie dostatočného množstva informácií, ktoré sú relevantné a slúžia na varovanie pred možnosťou realizácie strát z uskutočnených rizikových operácií,
- 3. riadenie očakávaných strát za podmienky, že riadiaci orgán disponuje reálnym odhadom veľkosti možných očakávaných strát,
- 4. v prípade potreby realizovanie operácií s cieľom eliminovať riziká a vytvoriť ďalšiu podnikateľskú stratégiu z hľadiska vopred definovaných cieľov [3,16].

Globálne obavy týkajúce sa finančných rizík sa v poslednej dobe neustále zvyšujú. V tomto prostredí hľadajú podniky akéhokoľvek typu a veľkosti také rámce riadenia finančných rizík, ktoré spĺňajú požiadavky na zhody, prispievajú k lepšiemu rozhodovania a zvyšujú výkonnosť. V podmienkach Slovenskej republiky a vo svete existujú rôzne spoločnosti, ktorých experti poskytujú poradenstvo a služby v oblasti riadenia rizík, finančného inžinierstva a správy majetku, kapitálu a finančných prostriedkov. Profesionáli z týchto spoločností kooperujú s rôznymi finančnými inštitúciami a ďalšími korporátnymi klientmi na dosiahnutí týchto cieľov. Význam riadenia finančných rizík v malých a stredných podnikoch spočíva v eliminácii a znižovaní negatívnych dopadov na finančnú oblasť jednotlivých subjektov. Malé a stredné podniky disponujú pomerne malým kapitálom a vzhľadom na túto skutočnosť si nemôžu dovoliť využitie služieb spomínaných externých spoločností.

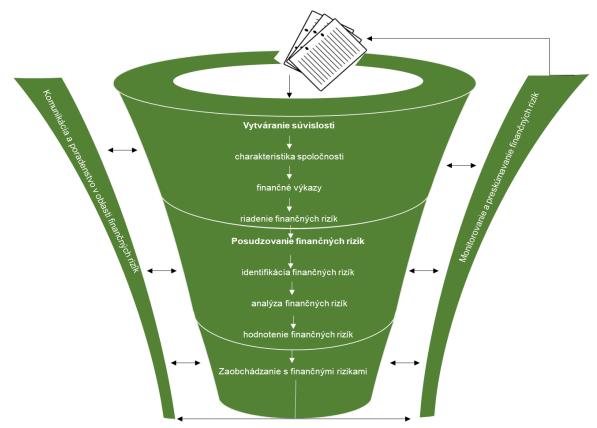
# 2 Návrh postupu riadenia finančných rizík

Riadenie finančných rizík je zložitý proces. Požiadavky kladené na uvedený postup predstavujú celý rad jednotlivých charakteristík, ktoré musí postup obsahovať. Medzi požiadavky na tvorbu postupu možno zaradiť najmä:

- jednoduchosť, zrozumiteľnosť a prehľadnosť procesu riadenia finančných rizík,
- akceptácia stupňa riadenia finančných rizík v podmienkach malého a stredného podniku,
- akceptácia charakteristík prostredia v ktorom sa plánuje proces aplikovať,
- akceptácia zákonitostí riadenia rizík a finančného manažmentu,
- akceptácia súčasných trendov v oblastí riadenia finančných rizík.

Nevyhnutné je si uvedomiť predovšetkým potrebu procesu prípadne postupu akceptovať stupeň riadenia finančných rizík v podmienkach malého a stredného podnikania. Nevyhnutnosťou sa tak stáva, aby proces prípadne postup obsahoval požadovanú mieru vstupných informácií (inputov), ktoré následne zhodnotí na základe stanovených kritérií a vo forme výstupov (outputov) dokáže riziká identifikovať, analyzovať a zhodnotiť.

Podkladom pre tvorbu postupu bol medzinárodný štandard ISO 31000:2009, ktorý obsahuje návod a všeobecný proces riadenia rizík, ktorý sa rozšíril o finančné ukazovatele nevyhnutné pre identifikáciu



finančných rizík.

Obrázok 1 Návrh postupu riadenia finančných rizík podniku

Navrhovaný postup riadenia finančných rizík pozostáva z piatich základných fáz – vytváranie súvislostí, posudzovanie finančných rizík, zaobchádzanie s finančnými rizikami, komunikácia a poradenstvo v oblasti finančných rizík a monitorovanie a preskúmavanie finančných rizík. Základné fázy, ale i vzťahy medzi nimi odrážajú jednotlivé zákonitosti postupu manažmentu rizika v norme ISO 31000:2009.

Fáza vytvárania súvislostí sa ďalej člení na jednotlivé fázy: charakteristika spoločnosti, finančné výkazy a riadenie finančných rizík. V charakteristike spoločnosti je nevyhnutné uviesť názov posudzovanej účtovnej jednotky, SK NACE, právnu formu, počet zamestnancov, predmet činnosti spoločnosti a strategické ciele spoločnosti pre budúce obdobia. Je to nevyhnutné najmä pre vhodnú identifikáciu

finančných rizík podniku. Tieto informácie budú slúžiť na komparáciu vybraných finančných ukazovateľ podniku analýz expost a ex ante s podobnými podnikmi na základe benchmarkingu.

Nevyhnutnou fázou v postupe riadenia finančných rizík malého a stredného podniku je i fáza zaoberajúca sa vytváraním súvislosti pre riadenie finančných rizík. Vo fáze sa vytvorí tabuľka hodnotenia pravdepodobnosti a hodnotenie dopadov, na základe čoho bude môcť riziká hodnotiť. Vytvorí sa i kategorizácia jednotlivých rizík a matica rizík, kde sa graficky jednotlivé identifikované riziká znázornia a posúdia z pohľadu ich akceptovateľnosti a neakceptovateľnosti.

Fáza posudzovania rizík sa berie komplexne. Pozostáva z krokov identifikácia, analýza a hodnotenie finančných rizík. V navrhovanom postupe je krok identifikácia finančných rizík rozčlenený na jednotlivé časti podľa zvolených ukazovateľov analýzy ex post a ex ante. Z ukazovateľov analýzy ex post a ex ante je vhodné využiť najmä:

- analýzu likvidity (bežnú a celkovú likviditu a okamžité peňažné prostriedky spoločnosti),
- ukazovatele riadenia aktív (obrat stálych aktív, obrátka zásob, doba obratu zásob, doba obratu pohľadávok a obrat celkových aktív,
- ukazovatele riadenia pasív (celková zadlženosť podniku, dlh na vlastnom imaní, doba obratu záväzkov, krytie stálych aktív, dlhodobá zadlženosť),
- ukazovatele rentability podniku (ROE, ROS, ROA, ROI, ROCE, výnos na základné imanie),
- ukazovatele zadlženosti podniku (stupeň zadlženosti, finančná páka, platobná schopnosť, stupeň finančnej samostatnosti),
- ukazovatele finančného zdravia podniku (Altmanov test, Quick test, Zlaté bilančné pravidlo, Index bonity).

Uvedené ukazovatele možno využiť vo fáze identifikácie finančných rizík bez väčších ťažkostí a v pomerne krátkom čase. Výhodou ich aplikácie je široké spektrum podpory identifikácie hlavných rizík podniku. Fáza identifikácia rizík sa dá rozšíriť i o časť obsahujúcu pyramídové rozklady (napríklad Du Pointov rozklad ROE) avšak pre malé a stredné podnikanie sú tieto metódy príliš náročné na čas a aplikáciu.

Nevyhnutnou časťou identifikácie finančných rizík je i stanovenie hodnôt vybraných ukazovateľov z odvetvia a z dosahovaných hodnôt ukazovateľov konkurencie a podnikov s podobným smerovanie, veľkosť podniku a charakteristiku podnikovej štruktúry. Vo fáze sa tak identifikujú primárne riziká, ktoré dokážu odhaliť určité súčasné pomalé narúšanie zdravia podniku prípadne naznačujúcich predzvesť krízy v podniku. Výhodou aplikácie je i možnosť včas odhaliť možné spúšťače rizík.

Analýza finančných rizík, je fáza v ktorej je možné bližšie riziko špecifikovať určiť jeho pravdepodobnosť výskytu a dopad pôsobenia rizika na podnik a jeho majetkovú štruktúru. Riziko sa zväčša analyzuje formou brainstormingu, kde zasadne manažment podniku, prípadne zodpovedný majitelia podniku a diskutujú o možných rizikách a symptómoch krízy.

Hodnotenie finančných rizík sa zaoberá rozhodovaním o akceptácií rizík prípadne o ich neakceptácií. Ak sa posudzovatelia rizika rozhodnú riziko neakceptovať, tak sa postupuje do ďalšej fázy postupu, a to do zaobchádzania s finančnými rizikami.

Zaobchádzanie s finančnými rizikami je v navrhovanom postupe riadenia finančných rizík vnímané ako stanovenie príslušných nápravných opatrení a stanovenie stratégie, na základe ktorej dokážeme hrozbu znížiť, preniesť, obísť a prijať, a príležitosť zvýšiť, akceptovať, zdieľať a využiť všetky, ktoré boli identifikované vo fáze identifikácia rizík.

Komunikácia a poradenstvo v oblasti finančných rizík patrí medzi dôležitú fázu v postupe riadenia finančných rizík v malom a strednom podniku. Je nevyhnutné aby manažéri a majitelia neustále komunikovali o nových rizikách, ktoré ich môžu ohroziť a využiť príležitosti, ktoré sa im v ich podnikateľskom prostredí vyskytujú. V tejto fáze je nevyhnutné i stanoviť potrebu poradenstva, ktoré môže byť využité v postupe riadenia finančných rizík podniku.

Monitorovanie a preskúmavanie finančných rizík slúži na sústavné monitorovanie a vyhodnocovanie akceptovateľných rizík, ktoré boli identifikované a podieľať sa na identifikovaní nových rizík, ktoré by mohli poškodiť podnik a zvyšovať využitie príležitostí.

# 3 Možnosti využitia postupu riadenia finančných rizík v malom a strednom podnikaní

Postup riadenia finančných rizík je možné aplikovať vo viacerých oblastiach podnikania. Predpoklad využitia navrhnutého modelu je najmä v oblastiach:

- riadenie rizík v malom a strednom podnikaní,
- hodnotenie rizík partnera,
- analýza podnikateľského prostredia,
- identifikácia symptómov krízy v podniku a zvládanie krízy,
- zvyšovanie využitia príležitostí,
- určenie kredibility malého a stredného podniku,
- stanovenie stratégie malého a stredného podniku.

Nakoľko vytvorený postup riadenia finančných rizík odráža jednotlivé podmienky kladené na postup riadenia finančných rizík, je vhodný práve na použitie v podmienkach malého a stredného podnikania v Slovenskej republike. Výhodou je i ľahká modifikácia postupu o jednotlivé požiadavky a charakteristiky podniku z hľadiska potrieb podniku a zamerania jeho činnosti.

Postup sa dá s menšou modifikáciou postupu využiť i na hodnotenie rizík partnera, na základe ktorého dokáže vopred odhaliť potenciálne hrozby, ktoré prináša spolupráca s partnerom. Tým podnik predíde mnohým rizikám (distribučným, ekonomickým, etc.). Všetky vstupy sa dajú ľahko nájsť na internete prostredníctvom registra účtovných závierok.

Výhodou aplikácie postupu je, že plne podporuje využitie príležitostí a znižovanie rizík, ktoré môžu podnik ohroziť počas jeho fungovania z pohľadu ekonomicko – finančných rizík. Súčasťou postupu je i široká podpora poučenia z minulosti (tzv. lesson learnt), ktorý je azda najvýraznejším súčasným trendom v oblasti riadenia rizika.

Malé a stredné podniky sa čoraz viac stretávajú i s problematikou nenávratných finančných podpôr ako zo strany vládnych a neziskových inštitúcií, tak i zo strany Európskej únie. Pričom na priamu podporu malého a stredného podnikania v prostredí Slovenskej republiky treba k žiadosti priložiť i projektovú dokumentáciu, ktorej súčasťou je finančná analýza, ktorej sa venuje nesmierna

pozornosť. Priamu podporu tvoria najmä dotácie, cenové a exportné príplatky. Aplikovateľnosť postupu riadenia finančných rizík sa tak stáva v tomto kroku nevyhnutnou súčasťou. Nepriamou formou podpory, kde však predloženie projektu a finančnej analýzy sa nevyžaduje, malé a stredné podniky na Slovensku využívajú najmä na zvyšovanie a rozvíjanie ich príležitosti s cieľom dosahovania konkurencieschopnosť. Medzi nepriame formy podpory v malom a strednom podnikaní možno zaradiť najmä: zvýhodnene podnikateľské úvery, daňové zvýhodnenie a štátne objednávky.

Stanovenie správnej stratégie smerovania podniku je jedným z primárnych požiadaviek každého stredného podniku. Navrhovaný postup podporuje i rozvoj tejto oblasti na základe analýzy ex ante. Podniku tak pomôže ľahšie plánovať budúce ciele, od ktorých sa bude neskôr odvíjať i stratégia.

Každý postup riadenia finančných rizík je špecifický. Odvíja sa od regiónu, zamerania podniku, veľkosti podniku a ostatných charakteristík. Preto nie je možné vytvoriť jednotný postup, ktorý by zohľadňoval všetky požiadavky na postup. Navrhovaný postup obsahuje všetky všeobecné charakteristiky, aby sa dal čo najviac využiť, a s čo najmenšími modifikáciami aplikovať v malom a strednom podniku. Výhodou je, že obsahuje základy z medzinárodnej normy ISO 31000 a odráža aktuálne trendy v oblastí riadenia rizík a finančného manažmentu, ako i to, že odráža súčasný stav riadenia finančných rizík v podmienkach Slovenskej republiky.

#### Záver

V súčasnosti patria finančné riziká medzi vážne ohrozenia podnikateľských subjektov. Spôsob riadenia finančných rizík v podmienkach malých a stredných podnikov sa v posledných rokoch neustále mení, pričom súčasné trendy čoraz viac podnecujú jeho ďalší vývoj. Nedostatočná a nevhodná aplikácia postupu riadenia finančných rizík prináša zo sebou určité negatíva, nielen v ekonomickej sfére podnikania, ale i v ostatných sekundárnych oblastiach. Predchádzať problémom súvisiacich s riadením rizík je možné najmä vďaka rôznym kontrolným mechanizmom slúžiacim aj na samotnú identifikáciu a monitorovanie finančných rizík. Riadenie rizík by malo byť v prvom rade hlavnou úlohou podnikateľov, pričom štát by mal vytvárať priaznivé podnikateľské prostredie pre malé a stredné podniky. Je dôležité aby finančné zdroje v podnikoch boli využívané efektívne a predchádzalo sa tak vzniku finančných a ekonomických rizík. Podnikateľské subjekty tým budú schopné dosahovať lepší výsledok hospodárenia, len v prípade vynaloženia dostatočného množstva finančných, materiálnych a ľudských zdrojov, ktoré budú vhodne v podniku použité s cieľom dosahovať trvalo udržateľný a racionálny rozvoj podniku.

#### Grantová podpora

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#### LITERATÚRA:

- [1] Aplan, R Norton, D: Balanced Scorecard: Strategický systém měření výkonnosti podniku. Prel. ŠUSTA. M. 1. vyd., Praha: MANAGEMENT PRESS. NT Publishing, 2000, ISBN 80-7261-03.
- [2] Bitz, M: Grundlagen des finanzwirtschaftlich orientieren Risikomanagements. München: Beck, 1993, s. 642, ISBN 978-3-8349-9192-8.

- [3] Harumová, A a kol.: Stanovenie hodnoty majetku. Bratislava: Iura Edition, 2008, ISBN 978-80-8078-224-5.
- [4] ISO 31 000:2009 Manažérstvo rizika.
- [5] Jílek, J: Finanční rizika. Praha: Grada Publishing, spol. s.r.o., 2009, s. 16, ISBN 80-7169-579-3.
- [6] Mařík, M Maříková, P: Moderní metódy hodnocení výkonnosti a oceňovaní podniku. Praha: Ekopress, 2005, ISBN 80-86119-0.
- [7] Míka, V. T: Manažérske metódy a techniky. Žilina: FŠI ŽU, 2006, [online]. [cit. 2017-10-15]. Dostupné na: http://fsi.uniza.sk/kkm/files/publikacie/mmk.pdf.
- [8] Neumanová A a kol.: Podniková diagnostika. Bratislava: EuBA, 2012, ISBN 978-80-8078-464-5.
- [9] Pavelková, I a kol.: Finanční analýza. 2 vydanie. Praha: Grada Publishing, spol. s. r. o., 2014, ISBN 978-80247-4456-8.
- [10] Pollak, H: Jak obnovit životaschopnost upadajícich podnikú. Praha: C.H.Beck, 2004, ISBN 80-7179-803-7.
- [11] Sedláček, J: Finanční analýza podniku. Brno: Computer Press, 2009, ISBN 97-80-251-1830-6.
- [12] Sivák, R Gertler, Ľ: Teória a prax vybraných druhov finančných rizík. Bratislava: SPRINT vfra, 2006, s. 248, ISBN 80-89085-56-3.
- [13] Synek, M a kol.: Manažérska ekonomika. 4. aktualizované vydanie. Praha: Grada Publishing, s.r.o., 2007, ISBN 978-80-247-1992-4.
- [14] Šimák, L: Manažment rizík. Žilina: Žilina: FŠI ŽU, 2006, [online]. [cit. 2017-10-15]. Dostupné na: http://fsi.uniza.sk/kkm/files/publikacie/mn\_rizik.pdf.
- [15] Vlachynský, K a kol.: Finanční manažment. Bratislava: ELITA, 1996. ISBN 80-8044-014-X.
- [16] Fotr, J. Hnilica, J.: Aplikovaná analýza rizika. Praha: Grada Publishing, 2014. ISBN 978-80-247-5104-7.
- [17] Veber, J. a kol.: Management Základy moderní manažérské přístupy výkonnost a prosperita. Praha: Management press, 2011. ISBN 978-80-7261-200-0.
- [18] Čulková, K. Gonos, J.: Hodnotenie výkonnosti podniku metódou ekonomickej pridanej hodnoty. In: Acta Oeconomica Universitatis Selye. ISSN 1338-6581. Roč. 2, č. 1, 2013, s. 49-56.
- [19] Rudolský, J.: Články o analýze. Finančná analýza podniku, 2016, [online]. [cit. 2017-10-15]. Dostupné na: http://www.fap.sk/FINANCNA-ANALYZA.htm.

#### THE IMPORTANCE OF BIG DATA TECHNOLOGIES FOR MODERN BUSINESS

Supervisor: Prof. Charles Saroufim Submitted By: Fartun Dahir Adan

#### **ABSTRACT**

This is a project on "pharmacy management System". This project has been made very interactive keeping in mind its reusability and user friendliness. The project has been developed using PHP as a front end and MYSQL SERVER as Back end. The user is provided with a database where the information is stored and can be retrieved any time when required. Security is maintained for the system, there is a User Name and Password for an authorized person only that person can access the data in the system.

#### **BACKGROUND OF THE STUDY**

Due to the size and quality service of the pharmacy, the pharmacy has a very large customer base. These customers tend to visit the pharmacy for services mostly when they close from work. At this period, the number of customers that patronize the pharmacy is on the increase, thereby making the workload of the pharmacists much more tedious. This case makes it difficult for the pharmacist to attend to customers in a short period.

Meanwhile the pharmacist has to ensure satisfaction in services to keep their customers. The factors mentioned above, results in delay of the services being rendered to the customers, thereby slowing down sales and risk losing valuable customers in the long run.

#### STATEMENT OF THE PROBLEM

Every organization today is committing thousands of dollars in making sure it matches with the trends of global growth in the world of technology. This has made exchange of goods and services easier considering that transactions are computerized or networked to be done over the now famous Internet. It is in this wake of reality that many efforts are made to ensure efficient, reliable and cost effective means of controlling the flow of stock in an organization. Business processes are done manually which is prone to error. For instance maintaining stock levels is not an easy task as a lot of time is wasted when stock taking is in process. I.e. the store has to be closed for at least three days to allow the process to be carried out. Purchase process is done manually which wastes a lot of time and money since the procurement personnel has to travel to the supplier so as to place an order. Keeping customer"s information is also a challenge to many businesses minus the database to restrict the number of people who should have access to the information. This calls for a control system that will foresee perfect control of business transactions and ensure stock flow stability.

#### **General Objectives**

The main goal of Pharmacy Management system is to help make the record keeping, accounting, and payroll simpler.

# **Specific Objectives**

To provide optimal drug inventory management by monitoring the drug movement in the pharmacy.

To ensure that the system is user friendly and time-saving.

To provide easily accessibility of customer management, sales reports, stock reports, employees" records, print and prepare invoices for customers within a specified period of time.

To evaluate the acceptability of the proposed system.

#### **METHODOLOGY**

#### Data Analysis

I examined the existing documents, forms, journals, books and magazines. Sometimes records are believable than what people say and thus we decided that it would be good to get facts from the documents as way to counter check what had been interviewed. We applied this "method at the end of the system study. The records reviewed included: written policy documents, rules and regulations, standard operations, procedures used in the pharmacy and other documents.

#### **RECOMMENDATIONS**

I recommended before the application is put into full use it should be further tested in sample field to eliminate any bugs that may not have been identified at the time of development.

Password levels may be increased to higher levels depending on the confidentiality of the stored data. The current system password is basically low level.

If opportunity allows, I hope that the features that have not been implemented in this application but were originally desired features will be implemented in order to improve on the efficiency, reliability and user friendliness of this system. These features include external networking (the internet) which will allow automatic placement of orders form the suppliers. I recommend the appointment of a systems administrator who will be in charge of maintaining the system and also user training on the use of the new system.

#### **CONCLUSION**

The system reflects the full requirements of the organization as it was required. The research was successful but with many challenges. The time frame for the research was limited and it was not easy to come up with an all-Inclusive list of requirements for the organization. Financial constraints were also a great challenge as not much was available to carry out our mandate effectively. Software acquisition necessary to build the system were not easy to get and they also. needed expertise to use. There also were great lessons learnt as well concerning good ti me management, thorough requirements analysis and preparedness in terms of tools for development.

#### **REFERENCES:**

I. Chaudhary, A.K. (1997). Encyclopedia of Management Information System,

Date, C.J. (2001). An Introduction to Database Systems. 7ul~ Edition. Pearson Education Publishers. New Delhi.

Elizabeth, A. et al. (2007). Journal of the American Pharmaceutical Association

Gerald, V. P. (2000). Database management systems - designing and building business a~5plications. Second edition. McGraw-Hill Publishers. New York.

James, AR. (2000). Introduction to information Systems. Second Edition. McGraw-Hill Publishers. New York.

Raghu, RZ~and, Jobann~s; G. (2000). Database management systems. Second edition. McGraw-Hill International Publishers. New Delhi.

Silberschatz, Korth and Sudarhan. (2000). Database systems concepts. Fourth Edition. McGraw- Hill International Publishers. New Delhi.

Thomas, C. and Carolyn, B. (2000). Database Systems A Practical Approach to Desi ~n, Impl ementation and Management. Third Edition. Addison-Wesley pub 1 ishing ltd. Edinburgh Gate, Harlow England.

William, ~ Sawyer, Stacey, C. H. and Sara E. (2001). Computers Communication Information.

3 Edition. Irwin/McGraw Hill Publishers. New Delhi India

#### **APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN VETERINARY SCIENCE**

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Artificial intelligence (AI) is a field, which combines computer science and robust datasets, to enable problem-solving. Artificial intelligence has numerous applications in veterinary science, offering valuable support to veterinarians and enhancing various aspects of animal care. Here are some key uses of AI in veterinary science:

1. Medical Imaging Analysis: Al algorithms can analyze medical images, such as X-rays, CT scans, and MRIs, to assist veterinarians in diagnosing diseases and detecting abnormalities. Al models can learn to recognize patterns and identify potential issues, helping veterinarians make accurate diagnoses and develop treatment plans.

#### AN ECONOMIC STUDY OF BAUO GAZ IN FAYOUM GOVERNORATE

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#### ABSTRACT:

The problem is limited to the fragmentation of agricultural holdings and the lack of public wages in the villages, which led the farms to conduct the process of studying crops on the same cultivated area, and thus becomes an urgent need to get rid of the waste from the harvest and threshing process in the shortest possible time to prepare the land for the following crops.

And some agricultural waste represents one of the energy sources in the Egyptian countryside, where the annual production of field crop residues reached about 30 million tons, while the annual production quantities of animal waste are about 30 million other tons, and Egypt began implementing organic waste recycling systems by establishing biogas units for production Biogas from livestock manure.

The country has recently suffered from crises such as lack of electric power, environmental problems such as garbage accumulation in cities and villages alike, and the presence of plant and animal farm waste, some of which are a problem, in addition to crises of unavailability of gas pipelines, and other economic and environmental problems that do not There is plenty of room to mention it. The Egyptian state is trying to overcome these problems by various means.

Which led to thinking about using biogas technology, as it is inexpensive and environmentally friendly, to get rid of the waste of villages and cities, and produce alternative energy, safe fertilizer, and most importantly, a clean and safe environment, in addition to accessing clean agricultural products with a competitive capacity benefiting the Citizen health and the national economy.

The study targeted the economic evaluation of the Bioenergy project for sustainable rural development, and the identification of problems facing this project and proposals for solving it.

The study indicated the decrease of indicators of financial analysis for the biogas project, which indicates that the goal of adopting this technology is not in its economic form, but rather succeeded in achieving the environmental goal of it.

# **KEYWORDS:**

Organic agriculture - Animal and vegetable farm waste - Organic waste - Biogas technology - Clean agricultural products - Economic assessment - Sustainable rural development - Biogas units - Biofuels - Financial analysis

#### INTRODUCTION

In light of the above and within the framework of the results of the study and the indicators, some recommendations can be proposed, which would raise the economic efficiency of using this technology, namely.

- 1) To ensure the continuous flow of gas without interruption, it is proposed to make additional units operating next to the established unit that will be fed from the sewage house of the beneficiary's house or from his farm waste.
- 2) Establishing a technical follow-up unit to treat production problems.
- 3) Spreading environmental awareness among all local media, in a way that deepens the thought of a clean and safe environment for human life in its surroundings, including air, water, plants and living creatures.
- 4) The establishment of large biogas units at the village and city levels in order to achieve the following.
- 5) To save a lot of money wasted on creating small units that are not followed up and thus do not work.

Not neglecting the idea of establishing or operating the small unit as a result of the high prices of selling compost compared to the price of subsidized gas.

Solve garbage accumulation problems in cities and villages.

Solve village sanitation problems in drinking water and irrigation.

- Using household leftovers and food processing residues in a healthy and safe manner

Exploitation of septic tanks located in front of houses in some villages for continuous and inexpensive feeding for large units.

Eliminate floating plants in canals and drains.

Disposal of plant residues on farms and horticultural gardens.

Take advantage of the large production in providing electric power to meet the needs at the time of the power outage.

Take advantage of the large quantities of digested units to provide safe and inexpensive fertilizer or reclaim new agricultural lands.

Production of energy and fertilizer from inexpensive sources.

# Introduction and research problem

The environment is the general homeland of man, and it is the framework in which a person practices his life and various activities. And thus affected by it and affected it. God Almighty has harnessed all the resources of the environment and humiliated him so that he can use them to satisfy his needs and desires, but the human being has been extravagant in using these resources and depleting them and polluting them in a way that led to the disruption of the environmental system and its imbalance, whether at the local or global level threatening the most dangerous consequences. The problem of environmental pollution appeared and became a danger to plants and animals and more dangerous to humans because it is at the top of the food chain [1].

As a result of the increase in the population, agricultural and industrial development, the improvement of the standard of living for human beings, the development of transportation and communication, in addition to the changing lifestyle and consumption, and the failure to follow

appropriate methods in managing solid waste, all this was accompanied by the accumulation of millions of tons of waste and garbage in cities and villages, Which distorted the beauty of nature and disturbed the environmental balance. Waste was associated with human life from time immemorial, as it was limited to his excreta and the remains of his food, and he did not suffer from the problem of disposal, because he was living a life of movement and traveling leaving his waste that he was deserting, and because these wastes were organic materials, they were borne and composted Organic feeding the plant, the volume of individual consumption has increased significantly in recent years, and the most dangerous result has been the increase in the volume of waste resulting from this consumption and the use of new means of well-being[2].

The increased intensity of the use of the production elements and the accompanying horizontal and vertical expansion was reflected in the increase in the amount of agricultural waste for farmers and the accumulation of this waste annually without treatment, and that its misuse represents a serious environmental damage and waste of an important economic resource. Agricultural waste is estimated at about 35 million tons annually, of which about 23 million tons are plant wastes (about 7 million tons of feed are used, 4 million tons of organic fertilizers and 12 million tons are left without benefit) and animal waste is about 12 million tons annually [3].

(About 3 million tons are used as organic fertilizer, and about 9 million tons annually remain without benefit) That is, there are about 21 million tons of agricultural (plant and animal) wastes annually without benefit, and lead to pollution of the agricultural environment, it has become necessary to activate interest in recycling agricultural waste for crops that A large percentage of the waste is formed, and the most appropriate means for converting this waste into materials of economic value contribute to increasing the productivity of agricultural crops, providing energy and improving the environment, and increasing the rates of self-sufficiency [4].

The civilized progress of the human being and his interest in preserving the environment from pollution and rationalizing the use of chemical fertilizers and the search for alternative sources of depleted petroleum energy have led to a return to organic agriculture and the exploitation of natural resources to produce energy, food and feed to produce agricultural products with global competitiveness, and this is done by adopting advanced, clean and cheap technologies that achieve ambitious Farmers use secondary agricultural products in an economical and environmentally safe manner to achieve additional income from the agricultural area unit[5].

### Problem of the study:

The problem is limited to the fragmentation of agricultural holdings and the lack of public wages in the villages, which led the farms to conduct the process of studying crops on the same cultivated area, and thus becomes an urgent need to get rid of the waste from the harvest and threshing process in the shortest possible time to prepare the land for the following crops. And the increase in the accumulation of agricultural waste and the process of getting rid of it by burning as it is the fastest

and easiest means available to it, which causes many problems, the most important of which is wasting agricultural waste and not using it as an economic resource[6].

The country has recently suffered from crises such as lack of electric power, environmental problems such as garbage accumulation in cities and villages alike, and the presence of plant and animal farm waste, some of which are a problem, in addition to crises of unavailability of gas pipelines, and other economic and environmental problems that do not There is plenty of room to mention it. The state is trying to overcome these problems in several ways[7].

Which led to thinking about using biogas technology, as it is inexpensive and environmentally friendly, to get rid of the waste of villages and cities, and produce alternative energy, safe fertilizer, and most importantly, a clean and safe environment, in addition to accessing clean agricultural products with a competitive capacity benefiting the Citizen health and the national economy[8].

Some agricultural wastes represent one of the energy sources in the Egyptian countryside, where the annual production of field crop residues reached about 30 million tons, while the annual production quantities of animal wastes amount to another 30 million tons, and Egypt began implementing organic waste recycling systems by establishing biogas units for production Biogas from livestock manure, and a training center for agricultural waste recycling and biogas technology was established[9].

#### Aim of the study:

The study mainly aims to: "Study the economics of biogas technology in Fayoum Governorate", through several sub-goals represented in:

- 1. Economic evaluation of a project to implement biomass technology in Fayoum (the vital energy for sustainable rural development).
- 2. Learn about the problems facing this project and proposals to solve them

#### Research method and data sources

The study relied on descriptive and quantitative analysis methods for the primary data that could be collected through the personal interview of the study sample. A research questionnaire was designed to collect data from the sample. In addition to the secondary data obtained on the websites, references, research and reports related to the field of study.

The data used were obtained from the Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, Central Administration for Agricultural Economics, General Authority for the Agricultural Budget Fund, Egyptian Center for Fertilizer Development, Central Agency for Public Mobilization and Statistics, Food and Agriculture Organization (FAO), Ministry of Economy and Foreign Trade, Ministry of Industry, some fertilizer companies. In addition to the questionnaire forms, they were designed to collect data related to the research from a field sample in Fayoum

Governorate, and that was from a sample of 100 individuals chosen in the engineering medium way, for the cultivated area and the number of for those in Fayoum.

#### Description of the study sample:

The research sample was taken according to the method of stratified random sample from farms in Fayoum Governorate, in the center of Tameyah and Atsa centers from the governorate. The planted and the number of holders in the governorate, which is estimated at 4502 acres, 3211 acres for the agricultural season 2017-2018. The villages of Al-Rawda and Al-Mazatly, with an area estimated at 419, were chosen about 460 acres from the Tamiya Center. And the villages of the Prince facility and the Abdul Majeed facility, with an area estimated at 254, are approximately 242 acres from the Atsa center.

# First: Agricultural waste management:

The environment is one of the most important issues that have occupied human beings since it was found on the surface of this earth because it is the environment in which it lives and from it gets its sources of life and its survival and continuity, so its pollution is the most dangerous thing that threatens this life and prevents the environment from being able to continue giving and regeneration to meet the demands of man. But at the end of the twentieth century, a person's influence on his environment reached phases of danger, as it exceeded in some cases the ability of natural ecosystems to tolerate these changes and cause environmental imbalances that threaten human life and survival on the surface of the Earth because the environment is the soul of natural balance and also concerned with the survival Life of the planet to preserve its diverse (renewable and non-renewable) resources automatically to ensure the continuity of all living and successive creatures in the future. Since the human being realized the extent of his misuse of the various elements of the universe around him, the call was made for Earth Day in 1970. Since then, the cries of environmental advocates have come out, and green parties have appeared in many countries, and many people form an environmental awareness and a real desire to stop the resource bleeding, A generation has emerged that knows new vocabulary such as: ecosystem, greenhouse effect, greenhouse effect, ozone hole, and waste recycling. Waste recycling is one of the pillars of the waste management process and must be raised awareness.

Biogas technology is considered one of the technologies used in waste management in the Egyptian village, in addition to producing compost fertilizers and producing unconventional fodder.

#### Second: Biogas production technology:

This technology achieves the production of clean, cheap and renewable energy, natural organic fertilizer rich in organic matter, major and minor fertilizer elements and plant hormones, free of visible microbes, weed seeds and nematodes, as well as securing villages from fire, raising the health level, and protecting the environment from pollution Figure No. (1)

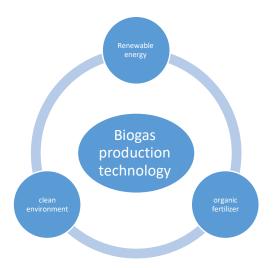


Figure: 1

# Conditions for testing the biogas unit location:

- 1. Close to the cattle barn and the restroom for easy feeding.
- 2. Close to the field for easy compost transport.
- 3. That the place be exposed to the sun all day and not exposed to the wind.
- 4. It is far from the source of drinking water.
- 5. The area between the unit and the place of gas consumption should not exceed 75 m

Feeding with organic waste (plant waste is cut into small parts or grinded) daily or at intervals. The waste must be mixed with water and the solid matter percentage does not exceed 10% in the feed mixture. Plant waste can be fermented aerobically for 20 days before feeding the unit with it and can be used Detergent-free waste water in dilution inside the biogas unit.

#### SETUP EDITORIAL BOARD INFORMATION

#### **Abdul Kareem K. Alelaimat**

Alelaimat Chemistry Laboratory

#### Journal basic information

**Sholarly journal name:** Alelaimat Chemistry Laboratory organization.

Subject area of the journal: applied and theoritical Chemistry.

Aims and scope of journals: Get the abilities to editing and review the studies come

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#### **Basic details**

Format of journal: online.

Requist is made by: the institution.

Frequency of proposed journal: Monthly.

# **Editorial policy**

All the peer reviewd submit to Alelaimat Chemistry Laboratory organization by the English language to monitoring the communications of it but only the organization dissertaions in the Arabic language to publish it in Jordan mother language, then it pass to the editor-in-chief who is Abdul Kareem K. Alelaimat to review it if it can be determined as the peer review article and review it. If there are another works or pressure on the editor-in-chief it will be late another two work days until he set it as it suitable to be a peer review article. The editor-in-chief then pass through the second step where he consider the peer-reviewed reports when making a decision,

but are not bound by the opinions or recommendations therein. All the papers will be in the true detecting language and scientific aims until if it can be a scientific fiction article. The ORCID number will be set on the peer review with the DOI identifier of the study, then it pass to be published.

# reviewing papers submitted for consideration

This review setting to determine if the type of the submitting papers are scientific or scientific fictions and the interseting in if if it imaginary childhood or real thinking and hard, the subject charcteristic if it a new addition in the area of the study and what is strongest of the ideas in the solving of the problems in the area and how it give the ideas in the text of the article. Then what are the writing skills followed by the article and if it had the high level in the language it written in it. After that, does the conclusion agree with the hypothesis and the theories of the solvations and if it agree with the majore questions of the study, then If the author is disagreeing significantly with the current academic consensus, do they have a substantial case? If not, what would be required to make their case credible? Finally, the agreements and the values of the other additional parts include the tables, pictures, figures, videos and if it get actual real effects on the atudy understanding.

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#### THEORETICAL REVIEW OF THE IRANIAN CASE IN MULTILINGUALISM

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#### **ABSTRACT:**

The country of Iran is made up of numerous distinct cultures and linguistic groups. According to Turkish, Kurdish, Baluchi, and Arabic speakers in Iran, their minority language is a significant part of their ethnic identity. The dominant Iranian population is bilingual. Persian is a language used for cultural and linguistic homogenization as well as for official purposes, but minority languages are not used in the education system. Complicated and puzzling for education authorities is the fact that there is an ongoing debate on the issue of bilingual education, and these programs are in place to assist students who speak a minority language. While it is difficult for Iranian educational institutions to balance different perspectives on English globalization, one of the obstacles they face is reconciling conflicting viewpoints on bilingual education. It's the lingua franca of international business, commercial aviation, and scientific research, and as such, most parents want their children to learn English. In contrast, Iran's comprehensive scientific plan predicts that Persian will become the world's primary scientific language in the not-too-distant future. Challenges, perspectives, and solutions in Iran's bilingual education were documented in this study. As seen from the results, resolving conflicts related to diversity, majority groups, and the presence of multiple languages will be an important challenge in the future. At the end of this manuscript, some solutions and proposals for finding a middle ground between bilingual education were presented.

#### 1. INTRODUCTION

Many experts believe that about two-thirds of the world's population is either bilingual or multilingual (Halsband, 2006; Ariyaningsih et al., 2020; Lu et al., 2021). While the increased diversity in our global community is increasingly apparent in schools and playgrounds, multilingualism and multiculturalism are societal facts of the 21st century, which can be seen across various settings. The term "bilingualism" has several usages. It signifies equivalent linguistic skills in two languages for certain people (Zuraida et al., 2020).

For others, it implies speaking two languages but with more advanced skills in one of them. Bilinguals who have always spoken two languages may actually be more dominant in one language than those who learned a second language after they had already spoken two. The phrase "bilingual" can cover several different types of people. Below the umbrella, you will find a diverse group of abilities that include varying degrees of fluency in two languages. Bilingualism is not only about being able to speak two languages fluently.

Ability exists without use of language. Despite a person's professional capability in two languages, that person may rarely or never utilize one of those languages. This person is bilingual, but he or she does not use that knowledge. The diversity of the population of Iran and the fact that the country is home to numerous different language communities all speaking different languages such as Turkish,

Kurdish, and Arabic makes Iran a highly interesting place to visit. Most kids begin learning their first language at home and also go to school studying their lessons in Persian the entire time.

Over half of the kids in the school were members of a minority language or ethnicity, but the institution itself was strongly aligned with the mainstream language and culture. In this instance, it may be said that education's curriculum is based on Persian, the most widely spoken language. According to this data, it can be stated that this curriculum has had no influence on the non-Persian-speaking population, and may even have caused bilingualism in the home and school. Additive bilingualism is seen as a form of subtraction in Iran. In contrast to additive bilingualism, in which children are given the freedom to develop a certain language, they learn within a community where languages and cultures are valued. In this scenario, it is much more likely that the child will develop additive bilingualism, as she/he will then be adding another language and culture to her/his existing L1 and L2 repertoire.

Conversely, one disadvantage of subtractive bilingualism is that the child must give up learning the first language in order to acquire the second, and in this situation, the second language is learned at the price of the first. Being bilingual in Iran has no impact on cognitive development, according to García (2011), as all of the children come from subtractive bilingual programs which may have possibly buffered or had a beneficial impact on bilingualism. Oller & Pearson (2002) argue that as long as a person can become an efficient bilingual, they can profit from more favorable impacts, even if they just make it to the third floor (high level) of competence. The main goal of this work is to provide evidence that the problem needs to be addressed, and to look for a reasonable solution to it.

The inclusion of Iranian families with two or more languages at home and in school has even reached the level of being acknowledged as an issue by national curriculum planners. One theory, which asserts that bilingualism is bad for your health, asserts that due of bilingualism or national planning's fabricated solution, bilingualism does not necessarily lead to balance and could even produce issues that could be harmful. Because of this, there are several obstacles for the Iranian educational system in terms of speaking in two languages in Iran.

Iran has participated in two international studies: TIMSS and PIRLS (Butcher, 2012). The findings show that Iranian pupils were among the worst performers in both studies. Among the fifteen countries participating in the 1970 international reading comprehension research, Iran placed 14th, while in the PIRLS 2001 study, Iran was 32nd among the 35 participating countries (Hameedy, 2004). Monolingual Iranian pupils performed worse than bilingual students in reading comprehension testing (Pouretemad et al., 2011).

Recent research indicates that bilingualism may increase the rates of retention and repetition. Therefore, the need for overhauling the educational system is due to the importance of using minority languages. This is the second obstacle, and it stems from socioeconomic and political conditions. In Iran, the main languages do not have any importance in education. One of the greatest difficulties emerges when these dominant languages are utilized in neighboring countries as a significant or formal language.

Bilingualism is common. Also known as linguistic relativity, that is, there is no person on the planet who does not know at least a few words in a language other than their mother tongue. In compared

with Persians, non-Persian pupils are faced with the challenge of grade repetition and retention, as well as high drop-out rates. An example is that in the province with the highest number of Turkish-speaking people, repetition occurs significantly higher in the first grade than in the fifth, in the rural than in the cities, and where there is less exposure to Persian because of the lack of power and television.

School disciplines in general have a bigger contribution to grade failure/repetition than non-language courses, according to research by Wehlage & Rutter (1985). Due to the fact that nearly everyone in our society speaks two languages, the school system as well as individual teachers are pushed to find some form of answer. As a country such as Iran is composed of a large population comparable to other countries, it must be recognized that there needs to be some type of bilingual education in place for it to be implemented.

#### 2. Materials and Methods

This manuscript, as revealed in its title, is a kind of critical literature review. Although research remains primarily a cumulative undertaking, literature reviews are essential in academia since scholarship is an ongoing process. Comprehensive literature reviews are crucial for practitioners, researchers, and graduate students alike, helping them locate, evaluate, and synthesize publications in the rapidly developing eHealth literature. Paré & Kitsiou (2017) state that it is important to perform literature reviews in order to identify and analyze what has already been written on a particular subject or topic, as well as the extent to which specific research areas reveal any discernible trends or patterns. Furthermore, literature reviews serve as a resource to assemble and synthesize empirical findings that support evidence-based practice. The job of a literature review is to come up with new frameworks and theories, as well as uncover questions that require further investigation. The following results and discussions is presented as the literature review results.

#### 3. Results and Discussions

Many ethnic groups, such as Persian, Turkish, Arabic, and Kurdish people, have historically found refuge in Iran. However, the official language of school teaching is Persian, which is the primary language of the non-Persian speaking majority. This issue has therefore presented itself in regards to millions of non-Persian speaking children, who have to deal with home and school bilingualism.

In a national educational and curriculum planning context, article 15 of the Iranian constitution calls for the right of all language groupings to use their mother tongues in their education and for the promotion of their native cultures. Yet it appears that policymakers and curriculum planners do not give much credence to this article's later point, where it also affirms the equal right of all these language groups to promote their native cultures. Language is seen by a dialectical constructivist as a crucial social tool that influences overall development (Fairclough, 2013; Latupeirissa et al., 2019).

A child's early conceptual development is influenced by their mother tongue, and is further influenced by the instructional language if it is other from their mother tongue. Even yet, in the case of a

youngster who knows and utilizes two languages at the same time, i.e. if they are bilingual, the two languages will jointly give a superior learning resource.

The popular belief in the 1960s was that native-English-speaking kids who learned a second language were disadvantaged. In the 1970s and 1980s, this concept was contested. In order to examine whether there was consistency in bilingual students' results across several subject areas, including mathematics, the results of several different studies were examined. While the majority of students found that their monolingual peers performed better than them, some data shows that bilingual students outperformed their monolingual peers.

There are several concepts that should be kept in mind: The pupils' balance in languages, the degree of linguistic competency the bilinguals have, and the setting in which they learn all go into the equation. A phenomenon such as the home and school bilingualism is present around the globe, and in this respect, people in Singapore, Canada, Switzerland, and many other nations have acknowledged the existence of it through implementation of some type of bilingual or multilingual education system (Romaine, 2013). There are no issues faced by students in Singapore, a country that recognizes four official languages, when it comes to their own and their school's bilingualism. Similarly, the problem in China can be solved by providing students with a better education, as proven by the country's success in curriculum planning. In contrast, in other countries even in Europe, it is difficult to find work as an artist.

# Biligualism in Iran

In Iran, the population currently stands at more than 75 million people, making it the most populous country in the Middle East. Despite the fact that all Iranians speak Persian, the official instructional language of the country is Farsi, the language of the predominant population. Turkish speaking population is the second largest linguistic group in Iran. In northwestern provinces of Iran, their community size is fairly substantial and comparable to the number of Persian-speaking residents. It is apparent that the Azeris, being the dominating population in the northwestern section of Iran, are the majority as well as the culturally dominant group.

Languages spoken in Iran include Kurdish, Arabic, and Baluchi. For example, there are minor groups like as Armenians and Aasooryans, who don't have a defined geographic area. Iran, in contrast to neighboring countries, has provinces named after the predominant ethnic group found in them (e.g., Fars, Kordestan, Lorestan, Baluchestan, etc.).

We should bear in mind that most regional languages are Persian relatives and are part of an Indo-European family branch. There are several main languages spoken in the northwestern section of the country, and these include Turkish, which is distinct from Persian, as well as being a branch of the Altaic language family. While linguistic diversity is present across the country, it's intermingled with religious beliefs, and as a result, ethno-political divisions have developed (e.g. in the province of Kurdistan).

It was believed for a long time that having a second language threatened the country's cohesiveness in Iran (Fateminasab, 2014). The national wealth that comes from diversity among Iranians who are

born into different cultures, languages, and varieties will now be appreciated, and diversity can serve as a valuable resource for continued social development and renovation as well as the maintenance of social health in a rapidly changing society.

Some challenges with education in minority languages have been caused by the fact that those languages are not taught in the educational system. As educational authorities pondered their various alternatives, such as a month-long intensive language training for non-Persian speaking pupils, several ideas were presented. But it will not suffice for this objective, as it has only been exposed to the mother tongue for six years. Another, and more accurate, statement is that the absence of the local language from the curriculum while students are still in school cannot lead to improved bilingualism. Instead, this could lead to the development of semilingualism, often known as not having proficiency in either language. Despite four years of training, there still appears to be a divide between Persian and non-Persian speaking kids, according to Hameedy (2004).

# The issue of language planning in Iran

The scholarly literature on language planning and language policy contains theoretical and applied research into a wide range of approaches to planning and implementing various kinds of language policies in many locations across the world. Language planning has been an issue for several decades, but it has only become very prominent in the past several decades due to the emergence of sociolinguistics, which is interested in looking at the kinds of problems and solving them. Language planning has gained prominence in the field of research in the last decade.

For Iranian people, it is vital that the position of Persian is properly established, and they should keep a keen eye on the use and spread of foreign languages. Linguistic assimilation is still in use in Iran in the same way that it was in the UK in the 1980s when language instruction was of single language, and instructional assimilation was a benign policy (Hameedy, 2004). Supporting the majority languages in education, as well as giving local languages priority in curriculum creation, instruction, and school time schedules, does not take place within the policy framework of the education system. As a quick timeline shows, modern education in Iran is quite new. The first modern school was established only 150 years ago, however its educational system has been in place for generations. France is considered the birthplace of modern education when Darolfonoon, a modern school in Iran, began teaching the students modern foreign languages such as French, Russian, and eventually English. Islamic ideals are practiced in language planning across Iran, even in the use of the language, however it appears that there is no overall language planning in Iran.

The biggest obstacle in the country after the Islamic Revolution was the lack of an official language-planning strategy, according to Tollefson (1991). Various roles for the native languages in the educational system have been developed in Iran during the post-war period. While the Persian language has been learned as a curricular subject by both native and non-native students, the oldest and most commonly-used model has been learning the language by way of an in-depth curriculum.

Twentieth-century history is dominated by nationalist fervor, usually around the insistence that a single state is established for each ethnic group and language. Language becomes a prominent feature of national identity. Iranian identity is strongly influenced by Persian language and culture. In the late twentieth century, there was a particular focus on the Persian language and culture in order to homogenize the various regions of the country.

Centralization of unique culture and language was a remedy for independence, according to Drummond (1980). Moreover, the conditions and implications of bilingualism are rarely examined in Iran, in part because doing so would encourage separatist groups and jeopardize the national cohesion. Additionally, whereas most countries throughout the world have already adopted bilingual and multilingual educational systems in order to deal with challenges surrounding globalization, internationalization, and rivalry among multinational corporations, Iran has been unwilling to do so (Mirhosseini & Abazari, 2016).

Due to these countries, especially Hong Kong, India, Japan, and China, viewing English as a gateway to international trade, and being much more conservative when it comes to foreign language policy, it may be inferred that countries like Iran are less engaged in the global market of commerce. Following the Islamic Revolution, and out of worry that English could pose a danger to Persian and Islamic culture, the politics of the language issue arose (Fotouhi, 2015).

On the other hand, the efforts have been made to assist minority languages. Also, for instance, daily numerous newspapers are printed in the majority language in Iran, local radio and television programs frequently broadcast daily, and the result is that many people tune in and give the minority language speakers with job opportunities. While the question is whether or not broadcasting can salvage a language that is losing its roles inside the family realm, it is important to ask whether or not such an endeavour is feasible on a local scale. Despite their capacity to relieve pressure, radio and television are just short-term solutions to the language's ultimate demise. It is impossible to uproot the root of the problem: the media. With the passage of time, it will be increasingly difficult for the media to engage young people in any meaningful way.

Iran has the distinction of being an ancient developing country as it was founded approximately 2,500 years ago, and throughout history, Persian (Old, Middle, New) has served as the language of standardization. different dialects and regional languages have always existed alongside this lingua franca (Seidlhofer, 2009). Political and sociocultural integration of an old developing country means that different ethnic groups of this country all desire political and cultural integration to be linked with and unified under their Great Tradition.

Fishman (1968) states that past literatures, legal codes, heroes, and leaders are highly respected; countries in the early stages of integration have a better chance of coping with increased linguistic diversity and social unrest because of it. According to Fishman's view, the consistent persistence of other dialects or languages alongside the dominant language in Iran is therefore entirely natural and even expected.

Linguistic division on its own does not cause political divisions to ignite. However, research of Nercissians (2001) study demonstrates that despite significant differences in linguistic behavior, there

are certain similar patterns between the two groups. Persian is a valued language both for informal communication and for governmental settings.

They also both aspire to keep and use their mother tongue. We should point out that, for one, the concept of religion, and religion in general, has played a major part in the definition of language identity. Of the 85% of Iranians who are Shiite, more than 85% are Shia. Religious similarities and linguistic variety have resulted in political bonds between language groups. Linguistic partition in Iran has thus far failed to provoke political contention (Callahan et al., 2003).

One may tell that external circumstances have helped foster linguistic challenge in Iran by looking at the large languages in nearby nations, all of which are minority languages. The Turkish language is used in the northwestern part of Iran for broadcasting Turkish-language radio programs for Turkish minorities in countries such as Turkey and Azerbaijan. To foster a sense of belonging to a multinational Turkish-speaking community. Baluchi, however, is part of an even wider language family in Iran known as the Iranian dialect group, spoken in the southeast of the country. However, even though Baluchi is not the major language in Pakistan, a significant number of the population speak it.