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**Veritas* is Latin for truth, reality.

IN THIS ISSUE

LETTER TO THE EDITOR

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With the new church dispensation in the book of Acts, when the Holy Spirit was poured out onto the 120 people in the upper room, they started to congregate from house to house. Preaching the Word of God to all that were willing to listen. In Acts 2 Peter, through the fire of the Holy Ghost, converted 3000 people in one sermon. The congregants grew in number and needed attention. In Act 6 people already felt neglected by the disciples. The twelve disciples called the disciples together to choose seven who should maintain and manage the tables and the distribution of the food, while the twelve continued to devote themselves to prayer and the ministering of the Word. They had a vision from God to maintain the gospel of our Lord.

Have clergies today lost the vision to maintain the gospel of God?

The picture within the church structures have changed drastically. The elders (congregation board members) are reluctant to do their functions as they should and lay the failures within the church at the feet of the Pastor. Not-with-standing that if the church board does not function as they should, the pastor is reluctant to ensure everything is done.

Now the pastor must ware different caps everyday such as, being the visionary leader, ensure that new members are visited, hospital visits are maintained, the garden is well looked after, the administration of the church is up to date, ensure the finances is up to date, be the electrician, and plumbers. Over and above this the pastor must maintain the quality of life with his family.

This may then ensure that man's mission become more important than God's vision!

Do not quench [subdue or be unresponsive to the working and guidance of] the [Holy] Spirit.   *1 Thes 5:19*

Man's Mission or God's vision: The face of the church (part 2)

When the pastor is more focused on man's mission than God's vision, he will not be able to assist congregation members who needs counselling. When congregation members are not attended to, they become less transparent with their problems and traumas, and keep it to themselves. This may directly influence the member's relationship with our Lord and Savior, Jesus Christ. When the pastor is not aware of the traumas and problems in his congregation, he cannot attend to it or adjust his sermons to accommodate the nature of the problems the people experience.

The congregation members may try to resolve their problems or traumas on their own which may result that they may obtain the wrong assistance to solve their problem. Should the congregation members problems or traumas remain to be stressful they may start to struggle with their faith. This may lead them to believe that God does not hear when they are praying or alternatively, they may leave the congregation because they feel no one cares.

This inability of the congregation members to conceptualize the stress of the pastor may eventually have a direct influence on the pastor when he sees member numbers are declining and he does not know why.

Take heed therefore unto yourselves, and to all the flock, over the which the Holy Ghost hath made you overseers, to feed the church of God, which he hath purchased with his own blood. (KJV)   *Acts 20:28*

Blessings
Dr Bertie Roux, D-Couns. PhD-Th

The editors at 'Veritas' welcome and encourage any responses to the articles in this publication by way of the LETTERS TO THE EDITOR forum.

IMPACT OF FORESTS IN GREATER LUMBINI AREA, NEPAL

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Abstract

Major events of Gautama Buddha from his birth to Mahaparinirvana took place in the forest. Buddha spent most of his life in the forest and gave sermons. The teachings of the Buddha state that one can be free from suffering and attain peace only if all the elements of nature, including the forest, are protected and used judiciously. His followers have been adopting nature-friendly Buddhist practices till now. The Lumbini Garden, the birthplace of the Buddha, is now being developed as a center of world peace. With Lumbini at the center, work is underway to bring the concept of a larger Lumbini for the protection and development of Buddhist sites from Kapilvastu to Ramgram. Despite huge investments in physical development, the Buddhist environment has not been created in these areas, which creates obstacles to the expansion of Buddhist philosophy and taking advantage of tourism from Buddhist sites. Due to the lack of forests in the greater Lumbini area, a Buddhist environment is not being created. The development of greater Lumbini can be made sustainable and fruitful if a Buddhist environment is created in the forests in this area and various kinds of forests are grown around the Buddhist sites. This article discusses the problem of lack of forests for Buddhists and the problem of lack of forests in the greater Lumbini area.

Keywords
Buddha, Greater Lumbini, Forests, Tourism

Forests and Society

Trees, plants, and forests are the best gifts given by nature. Forests play an important role in keeping the earth alive. From the microscopic vegetation found in the forest to the tall trees and from the micro-organisms to the gigantic creatures, they have helped to make the earth beautiful. Since forests carry out ecosystem sustainability, conservation of water resources, clean air production, and exploitation of toxic gases, the earth's environment has remained balanced and clean. Human life on earth is possible because of these trees and forests.

Since the development of the human race started from the forest, the forest and human society have been interdependent. Forests have been helping people in economic, social, and spiritual development. People are fulfilling their traditional needs such as the increase in agricultural production, animal husbandry, collection of timber food, and collection of herbs from the forest. People have been earning income by selling forest products, while forest-based industries have been helping in areas such as employment growth, import-substitution, and revenue growth. Forest-based eco-tourism has flourished in recent years. As the number of people who want to enjoy nature away from modernity is increasing every year, the attraction of tourists to the forest area is increasing and developing countries like Nepal have started benefiting from it.

Forests have a high place in every culture. Especially Hindu and Buddhist culture has been very close to the forest. Religious and cultural activities are carried out close to the forest, using forest produce. Since forests contribute to spiritual development and peace of mind, forests are given high importance in Buddhist philosophy. From Buddhist society to modern society, the philosophies, practices, and ethics related to forests and vegetation have been equally important in Buddhist philosophy.

Buddha and Forests

The Buddha and the tree are very strongly connected. The Buddha was born under the tree of Ashoka (also known as Sal, Pipal) in the beautiful Salvan (called Lumbini Upavan) between Kapila and the Koliya kingdom. After leaving home, the Buddha spent most of his time in the forest in search of Wisdom. It was during this time that he attained enlightenment in Bodh Gaya while sitting under the Bodhi tree. According to the Mahaparinirvana Sutta, after attaining enlightenment, the Buddha sat under the same tree for seven consecutive days. He also gave his first sermon in the forest at Sarnath. It is mentioned in the Buddhist literature that Buddha taught under various trees during his lifetime. In the end, Buddha also attained Mahaparinirvana under the Salvriksha in Kushinagar (Gosling, 2001).

Buddha attaches great importance to the entire living world. He has mentioned planting trees, making gardens, building bridges, and digging wells in the forest under the joint body as a way to attain heaven. It is also known from the Mahavagga Pali of Vinayapitaka that the Buddha gave great importance to the forest. Non-violence is the essence of Buddhist philosophy. The Buddha has emphasized that not only animals but also plants should not be harmed. It has been termed as a parajik crime for the monks to cut down a tree in the *patimokhya of Samyuktanikay*.

Similarly, it is considered a crime to destroy trees and plants without any reason in Pachittiya. The rules of *Varshavas* have been determined so as not to affect the plants growing in Mahabug Pali.

Buddhist Forests

Various types of forests are mentioned in various Buddhist literature including Tripitaka, Jataka Katha, and Attakatha. When Buddha traveled, he mostly lived in Amravan, Amalak van, and Aranyavan. Many such forests are mentioned in Vinay Pitak's Mahavagga Pali. The following forests are mentioned in various Buddhist literature.

a. Amravan (3 in Rajgriha, between Pawa and Kushi Nagar, and in Kamanda),
b. Ambapalivan (Baishali),
c. Ambatak Forest (Bajji),
d. Anjanvan (Saket),
e. Andhavan (near Shravasti)
f. Ichchanaggal Forest (Koshal), Jetwan (near Shravasti), Jatiya Forest (in Bajji Rashtra),
g. Kappasiya forest,
h. Kalandkanivaya (in Rajagriha),
i. Latthivan,
j. Lumbini van,
k. Mahavan (extending from Kapilvastu to the sea through Vaishali),
l. Madrakukshi Forest (in Rajagriha),
m. Peacock Garden (in Rajagriha),
n. Nagavan (Bajjima),
o. Sispavan (in Koshal),
p. Shitvan (in Rajgriha)
q. Upavattan Salvan (in Mallarashtra),
r. Veluvan (in Rajgriha),
s. Anupiya-Ambavan (in Malla Rashtra).

The following are the forests directly related to the life of the Buddha (Bidari, 1996).

1. **Jetavana:** Jetavana was the forest belonged to prince Jeta of Sravasti. According to the Mahapadana sutra Anatha pindika, a merchant purchased that forest and built three monasteries (Kareri Kuti, Kosamba Kuti, and Gandha Kuti). One Salalaar Kuti was constructed by king Prasenjit and these monasteries were presented to Lord Buddha and the community of monks. Lord Buddha preached Lakshena-sutra and seventy Sutras of Majjima Nikaya in this forest. According to Anguttara Nikaya and Buddhavamsa Lord Buddha spent his twenty-one to forty-five rainy seasons (Varsabash) in this forest (at Gandakuti).

2. **Nyagrodhvana:** According to Attakatha (Manoratha Purani) of Anguttara Nikaya and Buddhavamsa Attakatha (Madhurattha vilasini) mentioned that Lord Buddha spent his fifteenth rainy season at Nyagrodhvana of Kapilvastu. This is the place where Lord Buddha met his father Suddhodana for the first time after the enlightenment. Here, Lord Buddha preached the five sutras of Majjima Nikaya. This van is visited by the Chinese traveler Yuan-Chwang in the seventh century A.D. and mentioned in his travel account.

3. **Mahavana:** There were three Mahavanas of Vaisali, Urubela, and Kapilvastu as mentioned in the Buddhist literature. (a) Mahavana of Vaisali: Mahali sutta mentions that Lord Buddha was seen in the Kutirasala of Mahāvana at Vaisali and spent the forty-sixth rainy season in this place. (b) Mahavana of Uruvela: This place was within the Malla kingdom and Lord Buddha visited here many times. According to the Anguttara Nikaya Lord Buddha told Ananda about this forest and Lord Buddha spent five years following five Brahmin's preaching before enlightenment. (c) Mahavana of Kapilavastu: Various Buddhist sutras have mentioned this van. Attakatha of Vinaya-Pitaka is very important for the geographical history of the Buddha period. This history especially for the Mahavana of Kapilvastu gives a detailed description. This van extended from Himalaya to Vaisali thus this was called Mahāvana of Kapilavastu.

4. **Lumbini Forest:** Lumbini Vana: According to Pali literature Lumbini van was lying in between the Kapilavastu kingdom to the west and Devadaha kingdom to the east. Divyavadāna gives a detailed description of this forest and mentions that Lord Buddha was born in this forest under an Asoka tree. Both the Chinese travelers Fa-Hsien and Yuan-Chwang in the fifth and seventh centuries A.D. visited this place and named it La-Fa-ni Grove. There is no uniformity in the naming of this van (Gautam, 2017).

5. **Venuvan:** (a) Venuvana of Kajangala: Anguttara nikāya states that Lord Buddha spent a lot of time in this forest. Pali Tripitakas mention that Venuvana of Kajangala was the eastern boundary of the central kingdom. (b) Venuvan of Rajgriha: In this forest Lord Buddha preached various sutras of Majjima-Nikaya. According to suttanipata and Sumangala vilasini, king Bimbisara met Lord Buddha at Rajgriha and presented Venuvana (Bamboo Grove) to him and the monk community. Vinaya Pitaka further tells that there were other forests too, they were Jivakarma Vana, Latthivana, etc. Lord Buddha spent his second, third and fourth rainy seasons at this Venuvana.

6. **Amravana:** According to Papanchasudini Amravana near Rajgriha was presented to Lord Buddha by one medicant Jivaka. This place was so peaceful and tranquil that ven. Rahula (son of Siddhartha Gautama) spent most of his time in this forest.

7. **Ambapali van:** Various Buddhist literature has described this van which was situated south of Vaisali. Lord Buddha before traveling to Kushinagar for his Mahaparinirvana he spent the last year of his life in this van. Before he traveled to Kushinagar, Lord Buddha accepted the food offered

by Amrapali the owner of this van, and she presented this van to Lord Buddha and the monk community. Both the Chinese travelers visited this place and Yuan Chwang even mentions in his account that he saw that particular place from where Lord Buddha had observed Vaisali for the last time.

Greater Lumbini Area

The Greater Lumbini Area (GLA) covers an area of 5260 sq. Km and includes Rupandehi, Nawalparasi, and Kapilvastu districts in the southern plains of western Nepal. The area is home to many archaeological and religious sites relevant to Lord Sakyamuni Buddha's life, including his birthplace Lumbini. Besides Lumbini, which is on the UNESCO World Heritage list, the Greater Lumbini Area (GLA) includes three other important Buddhist sites; Tilaurakot, Devadaha, and Ramagrama. Tilaurakot-Kapilavastu, the city in which he spent the first 29 years of his life, and Ramagrama, one of the original eight nirvana stupas which have Buddha's relic. Tilaurakot and Ramagrama are on the tentative list for UNESCO World Heritage Status *(Coningham et. al. 2019).*

Forests in the Greater Lumbini Area

Lumbini, the birthplace of Gautam Buddha, Kapilvastu, his hometown, Devdah, the maternal home of Buddha and Ramgram, the place where Buddha's relics are located, is the major Buddhist sites in Nepal. Kapilvastu, the birthplace of Krakuchhand Buddha and Kanakmuni Buddha, is considered an open archeological museum. These places are in Nawalparasi (West), Rupandehi, and Kapilvastu which are under the Greater Lumbini area. These areas are preferred for agriculture due to the fertile soil and irrigation facilities in the state and easy access to India, transportation, and other physical facilities.

Until half a decade ago, most of these districts were covered with dense forests, but due to increasing human pressure in the last decade, there are only limited areas of forests. Kapilvastu district has 36.92 percent or 60 thousand 969 hectares of forest and saplings. In Nawalparasi (West) 2197 ha. (30.3 percent) is covered by forest and saplings. 25508 ha of Rupandehi district. (19.54 percent) of the area are forest and saplings. Although some of the forests in the middle of these districts are visible, most of the forests have shrunk in the northern part of the district (MoIFE, 2076).

Most of the municipalities in the greater Lumbini area have forests in very small areas. Forests cover only 3.5 percent (474 hectares) of the total land area of Kapilvastu municipality in the Kapilvastu district. Although there is no forest in Kapilvastu municipality, Kapilvastu has been able to take the environmental benefit as there is the forest in Buddhabhumi municipality connected to Tilaurakot. There is no forest in Lumbini Cultural Municipality except within the Lumbini Development Area. Although there is a thin forest in Gaidhawa municipality near Lumbini, it is 17 km away from the natural forest. Devadaha municipality has 53.8 percent (7352 hectares) of the forest. Most of the forests of Devadaha are in the Chure hills north of the East-West Highway. The Ramgram Municipality, which has the Ramgram Stupa, has only 0.5 percent (48 hectares) of forest (DoRFS, 2018). There is a good natural forest in the western part of Sunwal Municipality, which is close to Ramgram, which is about 12 km away from the Ramgram Stupa area.

Problems Caused by Lack of Forests in GLA

Since forests play an important role in livelihood, ecological balance, and cultural environment, these aspects are directly affected by less availability of forests. The main problems seen in the Greater Lumbini Area (GLA) due to lack of forest are as follows:

A. Challenges in Preservation of Archaeological sites:

Until the 1960s, most of the Buddhist archeological sites in these three districts were covered with forests. People used to fetch firewood from the same forest and run their daily activities. After clearing the forest nearby, the locals have started to meet their needs by clearing the forest and saplings at the archeological site. Many archeological sites are unprotected, making it easier to extract firewood and soil. Even in important areas that have been protected and fenced, the work of secretly cutting grass, and firewood, and extracting soil is going on. Such acts have exacerbated problems such as erosion of archeological heritage, alterations, and theft of heritage.

B. Effects of domestic and wildlife:

As there is no forest nearby, there is a problem of domestic and small wild animals grazing in the monument / archeological area and destroying the plants there. Due to the lack of forest, the farmer-wildlife conflict has increased when wild animals such as swallows and foxes in the Lumbini area reach the farms of local farmers. Lumbini's identity crane is also in crisis due to inadequate forest and wetland.

C. Landslides and river erosion

Landslides and river erosion problems have started appearing in the greater Lumbini area due to deforestation. Buddhist sites in Tilaurakot, Ramgram, and Devadaha are at risk of river erosion. The Nigali Sagar of Kapilvastu, Lambu Sagar, Devadaha Pokhari of Devadaha, and the Panditpur area of Nawalparasi are at risk of landslides.

D. Environmental pollution:

Air pollution in the region has been found the main culprit in discrediting Lumbini, the center of world peace. Air pollution in the Lumbini area has been discussed nationally and internationally in the last decade (Rupakheti, Dipesh, et al.2016). Air pollution

has increased due to smoke and dust emitted from various industries in Mayadevi Rural Municipality, road construction work in the Lumbini area, and traditional farming of farmers around Lumbini (BBC, Pollution has been more alarming due to lack of greenery in the Lumbini area. Air pollution has affected the identity of Lumbini and other structures including Ashoka Pillar.

E. Impact on tourism:

Tourists visiting Lumbini want a clean and quiet environment. Rising air pollution in and around Lumbini has frightened tourists. Larger concrete structures are being built in Buddhist sites than in a quiet and green environment. As tourists do not stay in such structures, tourists do not stay in Lumbini, Kapilvastu, and other places for long. This is the reason why even though we have world-famous Buddhist heritages, we are not able to take advantage of tourism.

F. Influence on Buddhist society:

The Buddha inspired his followers to practice in the quiet environment of the forest. In the early days, monks and nuns lived in the forest as mentioned in Buddhist literature. Many Buddhist monasteries in Myanmar and Thailand are still in the forest. However, as there is less forest in the greater Lumbini area, the monasteries are operated in the settlement areas. Since there is no Buddhist environment, monks, nuns, and other worshipers are facing problems. Some of the forests in the GLA have a limited number of monasteries, but these monasteries are built-in community or government-managed forests, the monasteries are not able to create a natural environment according to Buddhist philosophy and conduct their activities.

G. Impact on Buddhist population expansion:

The indigenous communities/ Janajati of Nepal are the main Buddhist community. 94.43 percent of the total Buddhist population of Nepal is of Tamang, Magar, Gurung, Newar, and Sherpa castes (CBS 2014). Janajati prefers to live near water (rivers or lakes) and forests. According to the 2068 BS census, the Buddhist population in Ramgram Municipality is only 818. Similarly, there are 5746 Buddhists in Devadaha Municipality, 71 in Lumbini Cultural Municipality, and only 107 in Rakpilvastu Municipality. In Sainamaina Municipality, which is believed to be an ancient Buddhist city, there are 3,457 Buddhists (Kandel 2020). Looking at these statistics, it seems that Buddhists have not been like to settle in the less forested areas. Although 23,96,099 Buddhists are living in Nepal, the number of Buddhists in major Buddhist sites in GLA is insignificant, which slowed down the spread of Buddhist philosophy and the development of Buddhist sites.

Recommendations

Since forests are needed to create a Buddhist environment in Buddhist sites, Buddhist countries around the world are adopting various models of forest development. Sri Lanka, Myanmar, and Thailand have given forest management rights to the Buddhist Sangh. In the mountainous region of Nepal, monasteries have done exemplary work in forest and wildlife conservation. As there are no dense Buddhist settlements and Buddhist Sangh in the greater Lumbini area, it is necessary to develop forests in these areas to create a Buddhist environment before implementing Buddhist-based forest management. Some ways to increase greenery and forest in GLA are as follows.

A. Religious Forest -

According to Article 28 of the Forest Act of Nepal 2019, religious bodies or communities established following the prevailing law for the protection of ancient religious sites and their surroundings can be handed over for protection as a national forest as an areligious forest. According to this arrangement, some parts of the forest in the greater Lumbini area can be converted into a Buddhist religious forest. Buddhist associations can be allowed to manage a religious forest by planting trees in the areas of Banganga, Tinau, Danda, Rohini, and the Jharhi river. In the Lumbini garden area too, old and imported trees and shrubs can be removed and Buddhist trees can be planted to make religious forests.

B. Urban Forest -

Urban greenery is very scarce in Toulihawa, Lumbini, and Ramgram. Due to this the city and the surrounding area look ugly. In these places, according to the Urban Forest Development Procedure Guidelines, trees can be planted along roadsides, private and institutional vacant lands, and private lands to make the city beautiful and the environment clean.

C. Forest in Buddha Circuit -

Tilaurakot-Lumbini-Devadaha-Ramgram areas are now being connected by the Buddha Circuit. The small forest can be developed on vacant lands on both sides of the Buddha circuit by planting trees based on Buddhist and Buddhist culture. The greenery along the road will attract tourists. (Shrestha, 2010).

D. Agricultural forest and private forest -

Kapilvastu, Lumbini Cultural, and Ramgram municipalities have ample private land which is not cultivated or has been abandoned. A private forest can be developed on these lands as per Article 35 of the Forest Act 2019. The National Agroforestry Policy 2019 and Forest Policy 2018 have provided various facilities to assist in private and agro-forest development. If the local government, provincial government, and divisional forest offices help the locals to plant such forests, good forests can be grown in these areas within a few years. Such forests not only create a clean, hygienic, green environment in Buddhist sites but will also help in generating income by fulfilling the needs of the locals related to forest production. Once the forest is planted on private land, the process of collecting firewood from the natural forest and nearby monuments will be stopped, which

will contribute to the protection of the forest and archeological heritage.

Conclusion

It has been 125 years since Lumbini was discovered. The search for Buddhist sites and heritages in Lumbini and its environs is still going on. It has been 44 years since the master plan for the development of Lumbini was started. Even after such a long time, the Buddhist sites from Kapilvastu to Ramgram have not been made attractive and well-organized religious and tourist sites. Until now, only concrete construction has been given priority in the name of development, so ugly concrete structures have been added to Buddhist sites like in the city. As human settlements are added and physical construction works are carried out at a rapid pace, the surrounding trees, plants, and greenery have dried up. It is destroying the beauty and spiritual atmosphere of Buddhist sites. The lack of greenery has adversely affected tourism and Buddhist traditional activities and has added challenges to heritage conservation.

Buddha's life and philosophy are based on the forest. Non-violence, peace of mind, and relief from suffering are the mainstays of Buddhist philosophy. For this, the Buddha has emphasized the proximity of human beings to forests, flora, and fauna. The Buddha has left a message to meet the needs without harming animals and plants. Forests are a great help in following the Buddha's path. Forests also play a key role in the development, protection, and beautification of Buddhist sites. The Buddhist spiritual and natural environment will not be ready until the forest is not developed in the Greater Lumbini Area. Until there is a lack of a Buddhist environment, it will be difficult to preserve Buddhist sites, expand Buddhist philosophy and take advantage of tourism from the Buddhist heritage.

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PERCEPTION OF AUDITORS AND FINANCIAL STATEMENT USERS REGARDING AUDITOR INDEPENDENCE

Dr James Chikuni Jerera*

Introduction and background to the study

"Investors rely on researches by market analysts to make informed decisions of where and when to invest" (www.interscience.wiley.com). Most of the investors and stakeholders base their investment decisions on the accounting information published by companies. However, the acceptance of published financial statements is dependent on the reports by the independent auditors.

"There is an allegation that accountants have a tendency of manipulating information to achieve predetermined results" (Hermanson et al 2000). For this reason, "it is necessary that a third and neutral party authenticates accounting information as a true reflection of the state of affairs of the company's performance" (Larsson and Wennerholm 2006). "Auditors normally fill in that role. The expectation is that the auditors disclose whether the accounts are true and fair, and establish is there is proper management" (www.academic.brokyln.cuny.edu).

"The financial scandals and business failures that have become a common characteristic of the contemporary business world seem to undermine investor confidence" (www.academic.brokyln.cuny.edu). According to Shayamapiki (2005), "there are questions, not only to those responsible for preparing and presenting accounting information but also to those who are the guardians of public trust, i.e. the auditors."

The result of the lack of confidence in auditors leads to a possibility of legal action by some users of accounting information who may have questions on the extent of auditor independence. "The reality is that legal frameworks in most of the major capitalist countries protect auditors from exposure to lawsuits brought by the shareholders and other third parties" (Kazunga 2005).

"Sometimes, the auditors may find cases of irregularities but due to 'forces', beyond their control, they may not be able to disclose the scandals" (www.blackwellsynergy.com). Accordingly, the independence of auditors comes under scrutiny.

"Financial statements users like directors, shareholders, and potential investors rely on auditors when assessing the correctness of financial statements" (Kazunga 2005). "Audited financial statements must reflect a true fair view of a company's position" (www.interscience.wiley.com). Accordingly, public companies are required to publish audited financial statements in the media.

Publishing of final accounts help shareholders and potential investors to make informed decisions. However, "a number of companies who had published good financial statements collapsed, a notable example being Century Bank, a Zimbabwean financial institution that collapsed in the year 2004" (Kazunga 2005). "Century Bank had 'good financial results' but, later, the Reserve Bank of Zimbabwe had to place the organisation under curatorship" (Shayamapiki 2005).

One can argue that auditors in Century Bank did not have enough independence and failed to perform their duties effectively because they should have unearthed the problems. "Auditors, on the other hand, feel that they are not to blame as there are things they can and cannot do in accordance to the professional and regulatory requirements that govern auditing" (www.earthinstitute.columbia.edu).

In the light of the preceding background, this study investigated the audit function and focused on the issue of auditor independence. The specific objectives of the research were to:

- Examine the significance of auditing and the responsibilities of auditors;
- Discuss the concept of auditor independence and ways for its promotion; and
- Describe the contemporary audit environment, highlighting the perceptions on the issue of auditor independence.

The Importance of auditing and responsibilities of auditors

"Accounting information provides for a vital means of communication between both the investors and the society on one hand and the management on the other hand" (Paradza 2003). "In order for financial information to be effective, it needs accurate preparation" (Paradza 2005). The qualitative characteristics of accounting information play a very important part in enabling the users to believe and act upon accounting information. "Auditors have a role of giving an opinion as to whether or not accounting information meets the required standards" (Larsson and Wennerholm 2006).

Auditors ensure that accounting information is reliable. According to Shayamapiki (2005), "there are five elements that ensure reliability and these are faithful representation, criteria for recognition, element of 'substance over form', neutrality, and prudence element."

"Some factors hinder the users of accounting information from getting satisfaction directly from the accounting information prepared by management" (www.earthinstitute.columbia.edu). One such factor is the 'agency problem'. This phenomenon is also a 'conflict of interest'. "Theoretically, the management acts to increase the value of the shareholders' wealth" (Mapani 2004). However, "in the reality managers, as human beings, the managers, often have interests that are at variance with those of the owners" (Kazunga 2005).

"Managers often tend to protect their interests at the expense of the shareholders" (Mapani 2004). As a result, "there is a temptation to exaggerate success and minimise failures of management's stewardship" (www.blackwellsynergy.com). "The leaders manipulate financial statements by overstating or in some cases, minimising the earnings per share information, which the users rely on in making rational investment decisions" (Paradza 2003). "There is a contravention of a qualitative characteristic of accounting information, which requires accounting information not to seek predetermined outcome such as aiming to report the highest earnings per share figure to attract investors" (www.blackwellsynergy.com). There could also be attempts to report depressed earnings per share amount to deceive regulatory authorities when profiteering is prevalent.

The high risk of conflict of interest results in users of accounting information being reluctant to accept financial statements without assurance from an independent observer. "The assurance comes from the objective attestation of the quality of accounting information done by auditors" (www.interscience.wiley.com).

Kazunga (2005) argues, "The financial information given by the management may contain material errors, which may have serious direct financial consequences to users who make decisions basing on such errors." In such situations, an attestation of a third party is essential to authenticate or endorse the quality of the information produced.

Mapani (2004) further highlighted, "financial reports or information that managers provide may contain errors, not disclose fraud, be misleading, fail to disclose relevant information or fail to conform to regulations." It means that a third party is paramount to authenticate or endorse the information from managers before it reaches the owners of the business.

"Auditors have the important role of attesting the credibility of financial statements" (Mashawira and Jubenkanda 2004). One can deduce that the primary role of auditing is to add credibility to the financial statements and this enhances the accounting communication effectiveness. However, "there are questions as to whether the auditors are still effective given the ever-changing environment of the modern businesses" (www.interscience.wiley.com).

Three control elements are critical for the audit function to add value or to provide assurance on the accuracy of financial statements. The first one is the preventive control element. "The prospect of an audit scrutiny ensures that those responsible for preparing accounting information perform their tasks more responsibly" (www.academic.brokyln.cuny.edu).

The second factor is the detective control element. "The task of verifying the appropriateness and adherence to internal control systems and that reports are free from errors by auditors enable the management to correct such abnormalities before the publication of financial statements" (www.academic.brokyln.cuny.edu).

The third control element is the reporting control element. "The auditor is able to report in his opinion all errors or inconsistencies not corrected by the management that are included in the reported financial statements" (Kazunga 2005). Therefore, the three control elements inherent in the auditors' report should if all is normal, enable the investor to have the assurance of the credibility of the reported information.

"The primary purpose of carrying out an audit is for the auditor to provide an opinion as to the true and fair view of financial statements" (Shayamapiki 2005). The auditor is required to make a report to the members on all the final accounts examined.

The auditor can express his or her opinion in five ways. These are the types or rather kinds of auditors' opinion. "An auditor can express his or her opinion through an unqualified audit opinion, i.e., when the auditor concludes that the financial statements give a true and fair view in accordance with the identified financial reporting framework" (www.academic.brokyln.cuny.edu).

Unqualified audit opinion with modification is another way an auditor can express the audit opinion. There will be an additional paragraph to the unqualified audit opinion emphasising a significant uncertainty, for example, the outcome of a lawsuit involving the company.

The auditor's opinion can also be a qualified opinion. For example, "when there is a limitation on the scope of the auditor's work or there is a disagreement with the management regarding the acceptability of the accounting policies selected, the method of their application, or the adequacy of financial statements disclosures" (www.academic.brokyln.cuny.edu). "As a result, the auditor concludes that an unqualified

opinion cannot be an option but that the effect of any disagreement or limitation on scope is not material and pervasive as to require an adverse opinion or disclaimer" (www.interscience.wiley.com).

The auditor can also give an adverse opinion. "The effect of a disagreement is so material and pervasive to the financial statements that a qualification of the report is not adequate to disclose the misleading or incomplete nature of the financial information" (www.academic.brokyln.cuny.edu).

Another type is the disclaimer of opinion. "The possible effect of a limitation on scope is so material and pervasive that the auditor has not been able to obtain sufficient and appropriate audit evidence" (www.academic.brokyln.cuny.edu). Accordingly, the auditor is unable to express an opinion on the financial statements.

The preceding paragraphs showed that the auditing standards provide alternative forms in which the auditor can express their findings. "However, with so many accusations and counter-accusations it then becomes questionable if the auditor's report gets the attention it really deserves" (www.blackwellsynergy.com).

Auditor independence

Corless et al (1990) agitated, "auditor independence is a cornerstone of the auditing profession." Auditor independence is a crucial element in the statutory corporate reporting process and a key prerequisite for the adding of value to an audited financial statement.

A number of factors may compromise the issue of auditor independence. In the first place, the external auditor is dependent on the client to pay the audit fee. According to Kazunga (2005), "the public accounting profession may argue that losing an audit client is nowhere near as serious as losing one's job (as might happen to an internal auditor who is critical of management)."

"Indeed, if an auditor has 100 clients all of an equal size, it may not matter much if the auditor loses one of the clients" (Kazunga 2005). However, if the auditor only has two clients of equal size, it is obvious that the consequences of losing a client will be serious to the auditor. In this case, it would be hard to argue that the auditor does not have a bias in favour of the client.

"If the total fees from a client do not exceed 1% of an auditor's total billings, that auditor is independent from undue influence" (Kazunga 2005). "However, if the total fees from a client exceed 20% of an auditor's total billings, questions can start to emerge" (Kazunga 2005).

Corless et al (1990) argue, "if maintaining 'good client relations' with a particular audit client is important to the career of an external auditor, he/she may be even less independent than an internal auditor." More so, some may argue that as long as the fees received from a client are small relative to the total revenues of the auditing company, independence is maintained. However, auditors must keep existing clients and attract new ones in order to stay in business. Therefore, they must encourage their partners 'to give good client service'.

"In addition to fee pressure, there are the psychological factors affecting auditor independence" (www.academic.brokyln.cuny.edu). The external auditors work closely with the client's personnel to produce the audited financial statements, and there is bound to be a certain amount of 'bonding' between them. "Often, the auditors come to share many values with the client's personnel" (www.academic.brokyln.cuny.edu). Sometimes, the auditor may work hard to look good in the eyes of the client, hoping the client will offer him or her employment.

Finally, there is a tendency for people to avoid giving bad news to others. These psychological factors cannot help but affect the independence of auditors.

Therefore, "it is difficult to establish the level of independence of the auditors" (Shayamapiki 2005). One way might be to consider how often auditors qualify opinions on financial statements. Another option to gauge auditor independence is to look at the nature of Generally Accepted Accounting Principles (GAAP).

Corless et al (1990) criticise the use of GAAP and argued, "if auditors were really independent, they would not need an extensive list of rules to hide behind when clients try to use strange accounting methods to produce misleading financial statements." "With respect to leases, for example, GAAP could simply state that when a lease is essentially a financing arrangement, the lease should be accounted for as a financing transaction; otherwise the lease should be accounted for as an operating lease" (Shayamapiki 2005).

If auditors were independent of their clients, they could and would stand up to any client who was trying to violate the spirit of such a straightforward accounting principle. "When looking at the GAAP, one can note that it takes many paragraphs to distinguish between operating and financing leases" (Larsson and Wennerholm 2006). Not only is GAAP complicated with respect to leases, but just about every aspect of accounting practice.

According to Corless et al (1990), "there is no easy way to establish real auditor independence." The first step is to acknowledge that in many engagements it does not exist. Perhaps required disclosure of the percentage of total billings of the audit partner come from the audit client would be a start.

A more drastic step would be to require rotation of audit firms at regular intervals (say every five years). Perhaps the stock exchanges or some other body could select the audit firms.

Increasing interaction between auditors and audit committees may help. However, "there is a need for recognition that often audit committees and members of boards of directors are in sort of an incestuous relationship with management" (Kazunga 2005).

The contemporary audit environment

Today's audit operates in a very complex environment. Larsson and Wennerholm (2006) highlighted, "there are incentives for short-term results." There have been advances in technology and more sophisticated business transactions have increased opportunities for fraud and abuse and enabled fraudsters to flourish.

Auditing a company's financial statements has become more of an art than a science in the increasingly complex global economy. As a result, "rather than alerting the public to aggressive financial statements by rejecting them outright or qualifying their opinions, the auditors transformed themselves into rule-checkers, i.e., if the rules were satisfied, they conclude that the statements were fair" (www.earthinstitute.columbia.edu).

Another complexity in the audit field is the issue of ethical dilemmas. The accounting profession's expansion into new areas, for example, auditors acting as consultants, has revealed many potential ethical dilemmas. One such ethical consideration applies to fee levels quoted by chartered accountants.

Larsson and Wennerholm (2006) described the auditing profession as "an ethically precarious profession, which unlike other professions where the major responsibility is towards assisting a client without actually worrying about how such assistance affects the rest of society." In auditing, there is reliance on an auditor's report done on the request of the client. Though paid by the client, the expectation is that they disclose whether the accounts are true and fair.

Another complexity of the modern business environment is the emergency and use of creative accounting techniques. Shayamapiki (2005) described creative accounting "as involving accountants making accounting policy choices or manipulating transactions in such a way as to convey a preferred and deliberately chosen impression in the accounts." Kazunga (2005) also described creative accounting as "an unconventional and questionable accounting treatment that is legal, but designed to mislead financial statements users about the real financial standing of the company."

Creative accounting to prevalent in today's business environment as managers try to find ways of increasing equity value thereby increasing their rewards. As highlighted by Kazunga (2005), "creative accounting is more prevalent primarily due to the market that unforgiving of companies that miss their estimates." The pressure to make 'numbers' often results in earnings manipulation by management and a consequent decline in the quality of financial information reported. According to Kazunga (2005), "creative accounting is at the root of a number of accounting scandals."

Consequently, Larsson and Wennerholm (2006) believe, "the market machinery is so efficient to be able to detect the use of creative accounting in the financial statements." The market will make the necessary adjustments itself to those statements. The efficiency this group relies entirely on, however, is not prevalent in the market and, in most cases, such use of creative accounting pass unnoticed hence the increase in financial scandals.

"Another area of complexity in the modern audit environment is advances in technology and transactions that are more sophisticated" (www.earthinstitute.columbia.edu). In addition, these have contributed immensely to the increase of the number of frauds and accounting scandals. As the methods for the processing and accounting data have changed, auditors have to change their approach to auditing. These changes are in processing, in the software used, and in the location of the data processing equipment. "These advances in technology and the increase in more sophisticated business transactions have increased opportunities for accounting scandals" (www.earthinstitute.columbia.edu).

The increased interest in ethics in business today is highly dependent on the corporate scandals. "Ethics deal with issues such as what individuals face in their decision-making" (Kazunga 2005). Ethics is also the study of morality in order to explain specific rules and principles that determine right and wrong for any given situation. It is in a profession's interest to have common ethical rules. Ethical rules clarify what good professional practice is. However, in auditing, the role of the auditor has come under fire because of many corporate scandals.

Larsson and Wennerholm (2006), shed some light on the ethical dilemmas faced by auditors and described auditing as "an ethically precarious profession." In other disciplines, the major responsibility is assisting the client, how this assistance affects the rest of society is not a major consideration. On the other hand, auditors confront complicated professional issues, for example, although they receive payment from the clients, their primary focus is to represent the public.

An ethical conflict exists when the duties towards one group are consistent with responsibilities to another. This definition describes the auditor, as highlighted by Paradza (2003), "as a person who frequently receives substantial client fees for both auditing and non-

auditing services." Yet, there is an expectation that the auditor provides an impartial endorsement of financial statements.

Should an auditor elects to publicise a discovered impropriety, he/she runs the risk of violating confidentiality, facing litigation, and damaging client's trust. Alternatively, if he/she withholds the release of this information his/her actions can be are legally negligent. The auditor he also has to fear the resultant loss of reputation from being overly lenient.

Larsson and Wennerholm (2006) pointed out, "the auditor at every stage is simultaneously required to consider the welfare of these competing interest groups." The public trusts that auditors perform their assignments proficiently, therefore, the more 'prima facie' duty is for auditors to be trustworthy.

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PROBLEMS IN ADMINISTRATIVE AUDIT OF THE HEALTH SECTOR IN THE COVID-19 PROCESS AND SOLUTION SUGGESTIONS

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FOREWORD

This study has been put forward in order to explain the problems and solution proposals in the administrative control of the health sector during the COVID-19 process.

Summary

The coronavirus pandemic continues unabated in the world and in Turkey. Considering the increase in the number of cases and deaths after the "normalization" initiated in the early period, and that Turkey still failed to suppress the epidemic in the six-month period, it does not seem possible to say that it was successful in carrying out the process. However, it can be said that the fact that Turkey did not experience the epidemic more severely is due to a few advantages it has. One of them was the low rate of the elderly population compared to developed countries, and the other was devoted health workers. Thirdly, especially in the first days when the epidemic hit like a tsunami, despite all the unpreparedness of the Ministry of Health, it was the tradition of deep-rooted, large public hospitals and public/communal medicine that "managed to survive despite everything", which prevented more deaths from happening by being organized rapidly. At this point, it is necessary to go back and remember the discussions about public hospitals within the framework of the Health Transformation Program. The fight against the COVID-19 pandemic has been going on for six months. In fact, considering that COVID-19 is not a hospital-acquired infection, but a global epidemic, and that SARS-cov-2 circulates not in hospital corridors, polyclinics, operating rooms, but on the streets, shopping malls, factories, workplaces, among people, the struggle is "on the ground". " and should have been met at the primary level. Moreover, Turkey had the experience of fighting against infectious diseases such as malaria, trachoma and tuberculosis for many years. But it didn't. Considering the transformation of the primary health care organization in the health "reform" process called the Health Transformation Program (SDP), it is understood that this situation is a necessity as well as being a choice. As it will be remembered, health centers that provided preventive and curative services on a regional basis were liquidated during the

SDP process; The preventive and therapeutic services for the community and the individual were separated and shared between the Community Health Center (TSM) / District Health Directorate (ISM) and Family Health Centers (ASM). The dominant structure of the primary health care organization, FHCs consist of the "Family Medicine Unit (AHB)" consisting mainly of a family doctor and a family health worker, and they carry out their services completely disconnected from the field, except for home visits. Moreover, since family physicians work on a list-based rather than geographic region/population basis, it is possible for different members of the same family to be connected to different family physicians, and for a citizen residing at one end of the city to register with a family physician at the other end of the city. It is naturally not possible to fight against any epidemic disease with such an ASM structuring. As a matter of fact, the only duty given by the Ministry of Health to 24 thousand family physicians and 23 thousand family health workers in the fight against the pandemic was monitoring by phone. The "stepchildren" of primary care, on the other hand, were insufficient in fieldwork in terms of team and equipment; The deficiencies were tried to be filled with reinforcements from other healthcare professionals working in the secondary care, who had no experience in primary care.

All in all; Turkey has welcomed the COVID-19 pandemic, which has been going on for six months, mainly in hospitals, which are secondary and tertiary healthcare institutions. To give a concrete example, the primary care was almost completely excluded due to the inadequacy of a person who applied to ASM/TSM with the suspicion of COVID-19, such as biochemistry, radiology (especially tomography) tests, which have an important place in the diagnosis, and consultations. Although it varies from region to region, secondary care hospitals could not participate in the struggle as expected/necessary due to their inadequacy in 24/7 related branch consultations, intensive care, and sometimes radiological examinations.

While certain public hospitals were designated as pandemic hospitals at the beginning of the epidemic, in the face of the rapid increase in the number of patients, Ministry of Health hospitals, state and foundation university hospitals, which have at least two of the infectious diseases and clinical microbiology, chest diseases, internal diseases specialists and third level

adult intensive care beds. All private health institutions were declared as pandemic hospitals. However, private hospitals, which have been accustomed to taking money from both the health insurance and the pockets of the patients for years, tried to escape from the pandemic struggle when it was difficult to receive "additional fees" under the epidemic conditions. President of the Private Hospitals and Healthcare Organizations Association, the organization of private hospital bosses, "Private hospitals have been declared pandemic hospitals, our turnover has decreased by 80 percent in the second week of the epidemic. Let the state seize private hospitals for 3-4 months until the epidemic ends." He tried to put all the burden of the epidemic on the state. Later, when the Social Security Institution determined a separate "COVID19 package" and accepted the patients, complaints that private hospitals chose patients, took money from patients, including intensive care units, and did not admit patients who could not pay money to the service even if there was an indication, took place in the public. As a result, the fight against the COVID-19 pandemic in Turkey continued to be carried out mainly in public hospitals, primarily medical faculties and training and research hospitals.

With the official announcement of the first case in Turkey on March 11, 2020, on the same day as the World Health Organization's declaration of a pandemic, hospitals suffered a massive influx of patients and there was great chaos. If we list the problems experienced in public hospitals, especially in the first period, under the main headings:

1. No serious preparatory work was carried out in public hospitals in the period of approximately two and a half months, from the first emergence of the COVID-19 disease in Wuhan, China on December 31, until the first cases began to be seen in Turkey. could not be implemented, health workers were not given the necessary and sufficient training regarding the plan.

2. Public hospitals were largely unprepared for the COVID-19 pandemic process; the lack of personal protective equipment such as masks, gowns, gloves, glasses, etc. experienced in hospitals clearly showed this unprepared situation. However, the "lack of material" situation is only the visible side of the picture, the main problem is the lack of organization.

3. Especially in the first days and weeks, the necessary algorithm for the reception/examination/ hospitalization / treatment of COVID-19 patients could not be implemented, the triage system to prevent the contact of other patients with suspected COVID-19 patients and other patients with a definite or suspected / probable COVID-19 diagnosis in most of the hospitals. It could not be deposited in separate services. The physical structure of many hospitals also created a serious problem in making the necessary arrangements.

4. Failure to make the necessary arrangements, especially in the beginning, when triage and COVID-19 outpatient clinics were not yet established, caused patients to go to the emergency departments first, and this situation increased the workload of the emergency services, which are already working with an extraordinary workload, in our country. Due to reasons such as test requests, which are required for bureaucratic purposes, a large crowd of patients has been experienced in hospitals, mostly in emergencies / pandemic outpatient clinics. However, in many countries, hospitals are not occupied when only testing is requested, and there is no need to go to the hospital by performing tests in crowded centers or even at stations set up on the roads.

5. The fact that the Ministry of Health did not make the necessary preparations caused the physicians, who were in the highest risk group in the epidemic, to be widely infected, and the fact that physicians in contact with COVID-19 patients in some hospitals were employed on 24-hour shifts in this process caused an increase in the virus load they encountered. As a result, according to the statement made by Minister of Health Fahrettin Koca on September 3, 29,865 health workers were infected in this process. In the statements of the Ministry, PCR positive cases were taken as basis; Let alone regular testing, it can be said that this number is actually much higher, given that there are serious deficiencies in the tests that should be done to healthcare workers who are in unprotected contact with COVID-19 patients and show symptoms.

6. The Ministry of Health refrained from sharing detailed data about the pandemic with the health workers as well as the society throughout the process; Physicians and health workers had to continue their daily practices without knowing what kind of phenomenon they were dealing with.

7. In the first days, the Central Hospital Appointment System continued to work as before, despite the calls made and the decrease in the number of patients, applications for postponed health services continued in many hospitals, and this situation further increased the chaos in the hospitals. On the other hand, the failure to make the necessary arrangements for the patients whose normal medical service needs continue in hospitals during this period also created serious problems.

8. In the reopening process called "normalisation", the failure to take necessary and appropriate measures has also led to serious confusion. The problems for the non-deferrable healthcare needs of non-COVID-19 patients are growing, and these patients are struggling to find a healthcare institution to receive service. For this reason, those who could not have important but "elective" controls had to apply, for example, coronary artery disease patient with myocardial infarction, diabetes patient with diabetic ketoacidosis.

9. Initially, the test centers and the number of tests could not meet the needs, the PCR test results requested from the patients reached the physician following the patient too late, and this caused serious disruptions in the treatments. In the meantime, it is also known that there is a substantial loss of test results that cannot be reached.

10. Limitation of PCR request from contact patients with the changes made in testing policies has caused serious problems in the patient-physician relationship, and the tensions experienced have turned into violence against the physician from time to time. On the other hand, the false expectation created in the society about the "Rapid PCR Test" for a while caused unnecessary applications and crowding, especially to some hospitals. The fact that the indispensable information such as sensitivity, specificity and accuracy about the test was not shared openly and transparently caused the citizens to live with a constant whispering newspaper.

11. Appropriate accommodation and transportation opportunities have not been provided for physicians and health workers who commonly encounter SARS COV-2 in health institutions to prevent this infection to their homes and families, necessary precautions have not been taken to meet their needs, especially for healthy and adequate nutrition, and health workers have not been able to personally report the problems they encounter. or with the help of voluntary organizations. After the March-May period, these aids decreased rapidly and approached zero.

12. No promise has been made that health workers will be paid performance fees from the ceiling during the pandemic; In particular, the scarcity of payments made to non-physician health workers and the unfairness of the payments negatively affected the motivation of the employees.

Undoubtedly, each health worker involved in the fight against the pandemic can extend the list listed under the main headings much further with their own professional experience. As a result, the lack of organization caused by the Ministry of Health's failure to make the necessary preparations for the two and a half months between the emergence of SARS cov-2 in China and the detection of the first case in Turkey, caused great confusion and confusion in the first days when the pandemic hit our hospitals like a tsunami. It caused panic, and the solution to the problems encountered was largely possible with the intense efforts of physicians and health workers. (OZTURK, KARCIOGLU, 2020)

COVID-19 HEALTH SECTOR MANAGEMENT

In the pandemic control guide prepared by the WHO, the steps of pandemic management are grouped under ten headings:
1. National coordination
2. Risk Communication and Community Engagement
3. Public Health Measures
4. Surveillance, Risk and Violence Assessment
5. Case Management
6. Infection Prevention and Control
7. National Laboratory Networking
8. Providing Logistics
9. Ensuring the Continuity of Vital Events
10. Research and Development

National Coordination:

In the prevention of the pandemic, it is important that the public and private sectors are in full harmony at the national level and pay maximum attention to what needs to be done in the society (2,3). In the pandemic preparedness planning, it has been determined how to ensure coordination between the relevant institutions and organizations. However, the risks and solutions that may occur during the implementation should also be considered in all aspects. It is necessary to establish systems where the participation of the society and public and private institutions/organizations can be evaluated and monitored in the measures to be taken during the pandemic.

Establishment of Provincial Pandemic Boards established in our country regarding the coordination work can be given as an example (3,4).

Risk Communication and Community Engagement:

"Risk communication" includes informing the public about the causative factor in a risky situation (5). Another important issue in epidemic management is ensuring community participation (6). Early detection of public perceptions and false information is important for the course of the epidemic. Ensuring community participation in the epidemic will be possible with the development of participation mechanisms that are culturally appropriate for the decisions to be taken and empathize with the society. Participation mechanisms should be developed in order to detect the perceptions and misinformation of the society early against the measures to be taken in a pandemic and to bring the right behaviors to the society.

It is essential to communicate about what is known and unknown in society, what is being done to prevent and control the spread. In this context, for effective communication with the public, risk perceptions, high-risk groups, facilitators and barriers should be analyzed and effective mechanisms should be established. Governments should base their policies and prepared action plans on the behaviors and perceptions of individuals, and interventions should be formed accordingly (6).

Public Health Measures:

Although approximately 9 months have passed since the beginning of the COVID-19 pandemic; Public health interventions are most predominantly available to successfully control the pandemic. Public health measures have some features:

One of them is the stratification of public health measures. Since a single measure will not be sufficient, a combination of measures should be made.

Another, public health measures, is often community-based. Community-based measures have the advantage

of reducing transmission by both asymptomatic and symptomatically infected persons. However, there is less consensus on the impact of such broad-based radical interventions on economic and social life and, above all, on how long they are socially acceptable (7). The impact of concentrated prevention interventions in risk groups such as nursing homes, nursing homes for the disabled, prisons, refugee camps (for example, restricting and prohibiting visits to nursing homes and critical parts of hospitals) is significant (8). The alternative proposal of comprehensive preventive measures (reverse isolation) only for the elderly and high-risk patients is still under discussion.

If implemented correctly as public health measures, practices that are important in reducing/preventing the transmission of COVID-19 can be listed as follows (5):
• Social distance (at least 1.5 meters, 5-6 steps)
• Hand hygiene (hand washing, use of hand antiseptics)
• Respiratory hygiene
• Making the environment positive
• Surface cleaning
• Disinfection
• Frequent ventilation of indoor environments
• Improvement of indoor air quality
• Use of appropriate personal protective equipment (mask, face shield) in parallel with the risks when necessary
• Health education

The main approach to be implemented nationwide against the COVID-19 pandemic should be to reduce the transmission of the virus from the sick person to the healthy person by reducing the contact rate of people with each other, that is, to limit community mobility (community containment). Restriction of community mobility is to prevent people from being physically together and close to each other, to reduce interactions and mobility, provided that the majority of the population conforms. Practices such as the cancellation of all meetings to prevent close contact, the closure of schools, the closure of workplaces and places where people spend time together, the adoption of working from home, and the protection of physical distance when necessary to meet basic needs can be implemented. This practice is successful by providing the planning and organization that will meet the basic and health needs of the society (9,10).

Not being asked to leave their homes for individuals aged 65 and over, who are known to be at high risk of COVID-19 in our country, is an example of isolation. It is the cessation of contact of the healthy group with the sick or suspicious people in terms of an infectious disease with a high mortality rate (5).

Following the Wuhan practices, where the most compelling examples of limiting community mobility in the COVID-19 pandemic were seen, the number of cases in other provinces of China was effectively controlled and deaths were reduced.

Measures that are particularly effective at the start of an epidemic, where chains of infection are still traceable, are isolation (people infected with SARS-CoV-2 and patients with COVID-19) and quarantine (people who come into contact with infected and sick people, communities severely affected).

Isolation of Patients:

Isolation still appears to be the most effective way to control COVID-19 (9). Isolation, which is also expressed as separation, is the cessation of contact of the cases with healthy people as long as the contagious period of the disease, and keeping them separate. Most of the patients are mild and asymptomatic cases, and these cases are followed up and isolated at home. However, in this case, it should be tried to ensure that the house conditions comply with the isolation principles. For this reason, some countries prefer to follow up and isolate mild cases in hospitals or designated places (6).

Examples of this are the detention of healthcare workers diagnosed with COVID-19 from work for 14 days and their separation from the community, and the detention of patients in areas such as dormitories and camps for as long as they are contagious (5).

Potential/definite cases of COVID-19 with a severe clinical condition, over 50 years of age and with concomitant diseases that may cause a severe course of COVID-19, and any of the poor prognostic factors are followed in the hospital. Patients who are hospitalized and meet the discharge criteria can also complete their recovery period at home. The Ministry of Health's 'Home Patient Monitoring' recommendations should be applied to patients to be monitored at home. In patients followed up at home, isolation is terminated at the earliest 14th day following the improvement of symptoms (9,10).

Contact Tracking:

The follow-up of case contacts is an important step in the prevention of the pandemic. According to the iceberg phenomenon; Patients who apply to health institutions, are diagnosed and registered are the tip of the iceberg. However, cases that are asymptomatic or whose symptoms do not require referral to health institutions are on the invisible part of the iceberg. Asymptomatic cases, which are on the invisible part of the iceberg, can spread the infection in the community and pose a threat to risk groups such as the elderly and those with chronic diseases. Therefore, contact calling is important in the control of the pandemic (6).

Contact tracing is widely used for disease control as well as a critical tool for investigating new diseases or unusual outbreaks. For this purpose, guidelines should be prepared and strong strategies should be developed for contact tracing (8). Contact tracing is among the prevention strategies of COVID-19 and is widely used.

Countries related to contact tracing have prepared guidelines (11-12).

The initiation of contact tracing is an urgent procedure. There are 3 basic steps in contact tracing (8):

1. Contact identification: If it is confirmed that a person is infected with the virus; Persons in close contact with the patient during the contagious period are questioned. Since the onset of the disease, contacts are identified by asking questions about the person's activities, the people around them, and their relationships with them. In the inquiry; exposure to the infectious agent, contagious period, potential interactions that facilitate transmission, and symptoms of the disease must be found. Contacts can be anyone who has been in contact with the infected person. In the contact group, family members, co-workers, social friends and healthcare providers, etc. can be found.

2. Contact listing: All persons who are thought to have contacted the infected person should be listed as contacts. Each person listed should be identified and efforts should be made to reach them.

3. Contact follow-up: All contacts should be followed up regularly to monitor symptoms and test for signs of infection. Patient contacts are contacted as quickly and sensitively as possible, and monitoring begins.

Quarantine:

Quarantine, one of the methods of controlling infectious disease outbreaks, is one of the oldest and most effective methods. This public health practice was widely used in the fourteenth century, especially in plague epidemics. According to the dictionary of the Turkish Language Institution, quarantine is a health measure applied to prevent the spread of a contagious disease by keeping a certain region or place under control and preventing entry and exit. According to the American Center for Disease Control (CDC), it is to keep people who have been exposed to the infectious agent and who may be sick separately in a certain area for as long as the incubation period of the agent and limit their movements. It has been reported that quarantine has given successful results in countries that have implemented strict quarantine since the beginning of the infection.

In an article quickly published by the Cochrane Library, the results of 29 studies evaluated reported that quarantine reduced the rate of COVID-19 infection between 81% and 44%, and the death rate between 61% and 31% (12). It recommends that those who have been in contact with laboratory-confirmed COVID-19 patients should be quarantined for 14 days from the time they were last exposed to the patient (11, 12).

If a symptomatic case is detected in a household, voluntary home quarantine, defined as the entire household staying at home for 14 days, is thought to reduce contacts outside the household by 75% and double the contact with households (13).

Surveillance, Risk and Violence Assessment:

One of the most important tools in the fight against infectious diseases that have reached epidemic proportions and in managing the epidemic is a strong surveillance system. Surveillance is the whole process of collecting data regularly and routinely, analyzing and interpreting data and distributing this information to the relevant units for the prevention of communicable diseases and their control. Surveillance provides an increase in the possibility of effective intervention (14).

Surveillance is of great importance in controlling the contagious disease epidemic. Surveillance systems provide the necessary information to the authorities immediately, guiding what kind of measures should be taken to combat the epidemic. The importance of national and international surveillance systems in the prevention and control of infectious diseases was once again seen in the COVID-19 pandemic (13). In today's surveillance systems, advanced information technologies, digital applications and artificial intelligence applications should be utilized at the highest level (15).

Case Management:

COVID-19 cases are detected when they apply to health institutions or during screenings in the community. Those with a laboratory diagnosis are classified as 'Confirmed case', those with typical clinical findings without a laboratory diagnosis as 'Possible case', and those with only some clinical features as 'Suspicious case'.

During the COVID-19 pandemic in Turkey, cases are divided into two categories as 'probable' and 'definite'. Those who have clinical findings and/or a history of contact with COVID-19 disease are considered as 'probable cases', and those who take samples from possible cases and find the causative agent by molecular methods (PCR test) are considered as 'conclusive cases'.

Infection Prevention and Control:

It is important to prevent infection in health institutions. During the epidemic, regulations should be made in order to ensure the continuation of COVID-19-related measures and health care services in healthcare institutions, to keep hospitals safe for patients with and without COVID-19 diagnosis, and to ensure the safety of healthcare workers. In a meta-analysis study that included 119,216 positive COVID-19 patients, approximately 10% of the patients (n:13, 119) were healthcare workers, and the mortality rate among healthcare workers was 0.3%, higher than that of all patients (2.3%). was found to be low (16).

Healthcare workers are faced with many problems different from working conditions under normal conditions due to the pandemic. At the beginning of these problems are the risk of infection and the unintentional spread of infection (17,18). In healthcare workers;
• The characteristics of the pathogen causing the pandemic are not well understood,
• Lack of awareness and training on wearing and removing Personal Protective Equipment (PPE),
• Lack of knowledge about infection prevention and control,
• An increased risk of infection is observed due to prolonged exposure to infected patients. Efforts should be made to prevent and control infection in healthcare institutions. Within the framework of COVID-19 measures, standard, droplet and contact precautions should be taken together. Healthcare workers should know and practice the proper use, removal and disposal of personal protective equipment.

Creating a National Laboratory Network:

Another important point in preventing the spread of the disease to the community is to increase the number of tests. This will allow more cases to be found, isolate and trace their contacts. Therefore, it is extremely important to increase the testing capacity of laboratories and new testing strategies. Efforts are being made to develop different diagnostic tests (such as rapid test kits, serological methods, self-collected sample tests) (19).

Plans for access to laboratory supplies should be reviewed frequently during the course of the outbreak, and controls should be made. Access to COVID-19 reference laboratories recognized by WHO should be maintained and isolate sharing should be made periodically with laboratories that comply with WHO guidelines.

CONCLUSION AND RECOMMENDATIONS

This study aims to present the precautions and solution proposals taken against the problems experienced in the supply of materials, the problems arising from the supply of protective equipment in the field and the working environment, whether the healthcare workers in the field during the pandemic process received training on the COVID-19 pandemic and ways of protection in their institutions.

According to the data obtained from the interviews with the participants, it is reported that the participants who have personal protective equipment problems have problems in the supply of N95 masks, visors, protective aprons and overalls, and the period that they cannot provide is about 10 days. It has been learned that this problem is seen more intensely in the supply of personal protective equipment among hospitals, especially in family health centers and relatively small hospitals far from the center of Istanbul. In this study, it was seen that the participants found a solution with

their personal efforts in a short time when they had problems in the supply of personal protective equipment. Healthcare workers may face many risks and dangers due to their working environment and nature of the job. In order not to experience disruptions in service delivery, they must first protect their own health. As a result of having problems in accessing personal protective equipment, feelings such as anxiety, fear and insecurity may occur and they can produce solutions against negative situations that may arise in service delivery.

As a result of this study, recommendations for pandemic situations that may occur, such as the COVID-19 pandemic:
• Comprehensive trainings on the pandemic should be organized and full participation in these trainings should be ensured, employees should be able to reach the trainers and answer their questions.
• Training should be given on intensive care services, and the continuity of the training should be ensured.
• The importance of personal protective equipment in infectious diseases and the use of these equipment
Training should be given to every staff member in the hospital, and it should be emphasized that personal effort is also important in preventing infection.
• Scenarios should be created for all kinds of extraordinary situations that may occur in institutions, appropriate guides should be prepared, and exercises should be done.
• Both managers and health workers make the necessary plans for all kinds of epidemic situations and frequently review the material warehouses and should make up for its shortcomings.
• Communication channels between managers and employees should be open, and problems should be solved together.
• Problems in the supply of materials with cooperation and communication between institutions should be solved.
• To be able to produce solutions to the psychosocial problems of the employees and to ensure the full well-being of the employees.
In order to protect them, it should be ensured that they receive service from professional support units with easy access, and employees should be supported.
• A rotational working system should be implemented for employees who may have to work outside their own working environment in extraordinary situations such as pandemics, and it should be ensured that they are familiar with the operation and treatment protocols in the departments of the hospital where they can provide service, so that the stress and anxiety that can be created by working in different units can be prevented.

There is a need for more comprehensive solution proposals for quality service delivery and holistic evaluations supported by qualitative/quantitative studies.

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CHRISTIANITY: A BRIEF INTRODUCTION

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Introduction

Imagine for a moment that you woke up one day only to discover that all that you have ever believed about the world and your faith were all wrong or untrue? I am sure not a little commotion would ensue (Jones n.d; p 5). First, the shock would be hard to accept and then as reality dawned, much would affect you so that for some time you would be unsure of whatever you have in your hand. The Bible that you have held so dear, the other literature and indeed whatever else that has warmed and comforted your heart would suddenly lose their comforting grip, if not repulsive. Those things that you previously had rejected and despised would suddenly become special and dear.

That's what happens when someone arrives at the truth that they have sought all their lives. They discard everything else if only they may gain a deeper appreciation on what they have long searched for. All the misinterpretations and wrong understanding are in the past, consigned to the confusion rubbish heap. That is what truth does to the person that comes to the Christian faith. While other people hold on to other religions and faiths, the saint finds sweet rest and communion in the Lord. The Muslim would boast about their deity, the Buddhist with rituals and the atheist with their irreligion (which really is a faith based "religion" in itself), the novice will find rest for their soul once and for all. They can safely declare that "My soul finds rest in God alone" (Psalm 62:1) which the nominal Christian may just give a mental assent to.

Defining the Christian Faith

But at some point however, it becomes important to define issues. From being hewn from the rock of sin, the new born babe in Christ craves pure spiritual milk as well as an intelligent appreciation of the new found faith. They want to fondly talk about the saviour wherever they go so that others too can share in the peace and tranquillity that is theirs. How do they do this? What is the simplest definition of the Christian faith? How can it be explained in capsule form so that others without any previous connection to it may understand the faith? Why is the faith different from all others and who are the chief architects relating to the faith?

These are indeed deep and legitimate questions but are not so easily explained though the mature saint finds great delight in talking about their saviour. The nice jewels and pearls are too numerous to pick and choose from for our redemption is a great and mind blowing one. Thankfully, authors like Douglas Jones, Thomas Watson, Dan Strange, A.W. Pink and C.H. Dodd among others have done a great work already in their write ups that help us highlight or synthesize some important points for our consideration. We adopt their models, thought process and structure of course, with some additional modifications.

First, Christianity is a faith that cannot be fully understood or appreciated apart from its Jewish origins, Judaism. For thousands of years, God had promised a messiah that would come and redeem His people, since the fall had taken place in Genesis 3, the garden. With time, God entered a covenant with His people with a promise to raise a deliverer, which deliverer came in the person of Christ Jesus (Deuteronomy 18:18). It should be noted that Judaism is based on covenants which God made with His people Israel and in the fullness of time, He fulfilled them. This is one connecting point between Christianity and Judaism. Second, the Old Testament is the same for both religions though the Christian faith has a New Testament. Actually, as far as the Christians were concerned in the first century, Christianity was an outgrowth and completion of what God had promised for ages past. Unlike what we know and probably observe today, the primitive saints did not consider or see any distinction between Judaism and Christianity. They were one and the same people but with time, the separation occurred with the Jews actually rejecting Jesus as the promised Messiah (John 1:12). A cursory reading of Acts will confirm what we state. That also explains why Paul was at pains to handle the Judiasers in his epistles (especially Galatians) because there was some serious confusion and contradiction in those early days. It would take some years to fully understand the full import of the Messiah's coming on the world, in fulfilment of the prophesies scattered right across the scriptures.

Having laid the ground for the Christian faith, we now proceed to summarise the content and meaning thereof. The Christian faith can be easily understood in three ways/stages: Creation, Fall and Redemption. Although this suggestion does not fully "box" Christianity in capsule form per se, it however does give a snap shot and bird's eye view of what Christianity is. We break it down accordingly:

Creation

When God created the world as told in Genesis 1 & 2, He created things out of nothing or no pre-existing material (*ex nihilo*). God created out of His good pleasure not out of need or insufficiency in Himself. Out of the hand of the creator's hands, a perfect world was given into which man, the highest of creation, was placed to work and keep it. Man was created positively righteous and placed there as a test to see whether he would obey God, a probation of sorts (Watson 1958; Genesis 2:15-17). For a while, everything progressed well according to plan. Some have called this "*Paradise given*" from the hands of the Creator (Strange 2011 p 5,7; Douglas n.d).

Fall

However, with time, the ancient serpent made his way into the garden and deceived Eve to eat the forbidden fruit. She, in turn, caused her husband to eat of the same with devastating consequences which ramifications haunt us today, as long as eternity tarries. In the bid to get wisdom and to be like God, the duo fell from the original state of righteousness and plunged into the dark abyss of spiritual ruin (Ephesians 2:1;4:17-21). The image of God in man was corrupted, darkness fell over the mind and depravity would become the sinful man's lot. The propensity to sin and love darkness rather than light became the norm (Boston 1964). At that moment, enmity between the serpent and the woman's seed was declared, though in the same breath, the *proto evangelion* is declared, that a saviour would come (Genesis 3:15). This spiritual death, separating man from God would reign for a myriad generations, without hope and without God in the world (Ephesians 2:12-13). Only those that exercised faith in the true God were declared righteous by faith. This was a dark, dark day for humanity! This is dubbed "*Paradise lost*" by some writers.

Redemption

However, God had a plan to remedy this devastating consequence of the fall. In the fall, Adam committed what is known, by theologians, as the "*original sin*" and thus acted as a representative head, causing all men to fall into sin with him (Genesis 3:14; Romans 5:12-13). Thus all humans sinned in Adam and consequently held guilty before God. It would take the promised Messiah, in the person of Jesus Christ, toincarnate, live and die on the cross for the human race. He did much more. He rose for their justification, was seen of men to be alive and taken up to glory where He ever lives to intercede for the saints (Romans 4:25). This has been dubbed "*paradise gained*". Further, when Jesus atoned for sin on the cross, he propitiated God, thus expiating God's wrath from sinful men so as to secure their redemption with its attendant fruits in justification, sanctification and ultimate glorification (I John 2:1-2; Roman 8:28-30; Romans 6 etc.). The Holy Spirit applies the work of redemption when He regenerates individuals and permanently indwells them unlike in the past when God was in a sense restricted to the Temple or occasionally filled men for service. Now the Spirit dwells in us forever as a deposit guaranteeing our inheritance (Ephesians 1:12-13).

In future, Christ will return to wrap up history and take His elect home. At that stage, Paradise will be restored as it originally was prior to the fall. Every Christian looks forward to that glorious time. But it will be an awfully tragic time for the unbeliever because theirs will be the lake of eternal fire where the wicked shall be cast for ever (2 Thessalonians 1:9).

Thus we have attempted to summarise the Christian faith. We trust this will point the person searching for reality in religion to consider carefully the words written above and better still, dive into reading the Bible itself from which all these ideas have been synthesized.

Lessons and Applications

1. Salvation is by grace alone. No one is ever saved except through Christ.
2. We live in a fallen and broken world. Things can only get worse.
3. God, in Christ has responded to redeem man and in future, all creation.
4. The gospel must not only be preacher but believed by all. Christ alone is the saviour.
5. God created the world through His declarative word not through evolution as purported by some.
6. This creation was complete, mature and beautiful, very good.
7. God sustains His creation through providence.
8. In Adam, all humanity dinner having failed the probationary test.
9. The ramifications of the fall are so grave as to render man totally but not absolutely depraved.
10. Only the grace of God remedies the effects of the fall.
11. The fall was no surprise to God because He is Omniscient.
12. Redemption by that token was not an afterthought.

Conclusion

From the foregoing, the Christian faith may be understood as lived by faith in Jesus having gone through Creation, Fall and redemption. The solution to this broken world is exclusively in Christ that repairs everything lost in the fall. All men must how to Christ to be saved.

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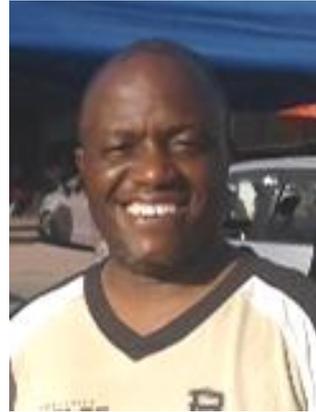
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EXTENT OF PARTICIPATIVE MANAGEMENT IN CHRISTIAN BASED NON-GOVERNMENTAL ORGANIZATIONS IN NORTHERN UGANDA

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Abstract:

The study looked at participative management as a practice of empowering members of a group such as the employees of an organization or citizens of a community to participate in organizational affairs. The constructs considered in the study included: decision making, communication and team work to yield productivity or enhance performance of staff members. The study was a one-time-off and cross-sectional in orientation. Five Christian based non-governmental organizations were investigated in Northern Uganda with a total of 113 participants. Primary and secondary data were used; and that the study relied on quantitative and qualitative approaches to arrive at major results and conclusions. Questionnaires and interview guide were relied on to generate results. In all these organizations, the study revealed the following: that on average, 50.6% of the respondents agreed that there is effective decision making; that 62.1% of the respondents approved that there is good communication in the organizations; and that 59.3% agreed that teamwork in participative management is common. The study concluded that the leadership of all these organizations should not be complacent about these positive percentages. There are gaps noted. It is recommended that there should be sustained commitment on the part of the leadership of these organizations to always ensure that regular and sustained consultations should always be conducted involving different categories of staff members in decision making processes; and that communication using various methods be appreciated and used to reach out to different categories of employees; and that teamwork and sustained team building be considered as the norm in effective and efficient management of these organizations. To this extend, involving different categories of staff members in appropriate and relevant work teams should be enhanced to strengthen and galvanize harmony at work place.

Key words: decision making, communication, teamwork and participative management

Introduction and Background

The concept of participative management has become important in the struggle to improve the effectiveness and efficiency of both the management of organizations and the management of development. Participative management for Christian based NGOs is perhaps best seen as an aspirational concept which can help to improve organizational impact on beneficiaries through greater involvement of staff in decision making. Rather than forming a unitary approach, participatory management is best seen as a bundle of ideas. It is argued that such a view provides real choices and opportunities for Christian based NGOs to improve their effectiveness and efficiency.

Participative management theory originated with the global changing roles of management, emerging technology, international and national competitors, and then the growing customer expectations (Reese & Garth, 2009). Participative management practices have existed for more than a century, but they expanded in scope and practice during the 1970s as organizations recognized the benefits of redesigning manufacturing jobs to minimize repetition and give employees input into matters that could influence their work (Karz, Kochan & Colvin, 2007). Research has demonstrated that employees form distinct participative–climate perceptions which are associated with outcomes that include corporate performance (Miah & Bird, 2007).

Christian based nongovernmental organizations around the world work tirelessly to spread hope, faith and charity through the services that they offer to different communities, for example, the humanitarian, educational, health care, public policy, social, human rights and environmental services. The impact of coverage of Christian based NGOs is wide, forming nearly a third of the world's population, that is to say, about 32% (George, Haas & Pentland, 2014).

Christian based NGOs are generally trusted by the community and can easily access human and financial capital in the form of volunteers and donations. They also create and provide community leadership. Employees working in Christian based non-governmental organizations are generally disciplined and committed to their workplace goals because of their spiritual values which encourage the practice of discipline.

Employees in Christian based NGOs make demands onto their employers to be more involved in decision making. This is because non-governmental organizations (NGOs) are now looked upon as significant providers of services to the state (Sabiti, 2003). Undoubtedly, today, in order for an organization to be successful, it should care for its employees as

important assets and keep them satisfied. Since there is increasing pressure on staff to perform functions being high; and there is high competition for limited resources; with complexity in decision making, NGOs should then shift to more cooperation and participation to increase their productivity. Bhatti and Qureshi (2007) argued that effective employee participation is likely to increase job satisfaction and productivity of an organization.

Employees in participative climates generally face fewer organizational constraints and personal risks that may prevent them from providing high levels of customer service. Dogan (2009) notes that when management discovers there is no guarantee of one-on-one correlation between participative management, employee job satisfaction and productivity, interests usually wane. On the other hand, job satisfaction is linked to success in performing a job. It is also generally perceived to be directly linked to productivity as well as to personal well-being (Bhatti et al, 2007).

Job satisfaction can be considered as one of the main factors when it comes to efficiency and effectiveness of organizations. In fact the new managerial paradigm which insists that employees should be treated and considered as human beings with faculties, and when this is recognized, may then lead to the attainment of high job satisfaction in contemporary organizations. A happy employee is a productive employee (Sweeney & McFarlin, 2006).

Participation has been examined in terms of its ability to enhance outcomes such as productivity and quality, processes such as communication, decision making, innovation, labor-management relations and psychic states of mind, employee satisfaction and commitment (Kiyani, Haroon, Liaqat, Khattak, Bukhari & Asad, 2011). Productivity therefore is generally measured by the ratio of output to input. An increase in the ratio indicates an increase in productivity. Conversely, a decrease in the output/input indicates a decline in productivity.

Over the years, the practice of organizational management in Christian based non-governmental organizations demanded that management would expect workers will do the work that is set before them. While this was a perfectly typical method of getting results through others in the early years of assembly line and scientific management, it is no longer true of today's contemporary business management (Sabiti, 2003).

Problem Statement

According to David (2014), most non-governmental organizations have written policies stating that they believe and use participative style of management. However, it commonly becomes the case that although the organization may subscribe to the goal of participative management, the communication is still from top to bottom with many decisions and policy making held in the hands of top management. Much dissatisfaction emanating from decisions taken only by top management in Christian based non-governmental organizations has led to employee depression and uncalled for actions including high job turnover, for example in the case of Compassion International-Uganda lost several workers between October and November (2017) due to dissatisfaction which forced them to do advertisements in *The New Vision* newspaper dated 13th November, 2017. It is argued by some pundits that some Foundations premised upon Christian "values" make it difficult for employees to indulge into ideas which may not be based on biblical principles thereby resulting into frustrations and slow organizational growth. According to Ager (2013), 68% of humanitarian workers in Lira District experience high levels of symptoms of depression. It is alleged that a number of Christian-based NGOs in the region channel their funding directly for activities leaving, and giving less attention to operation and administrative expenses, thereby leading to limited mission accomplishment. A neat and appropriate balance in resource allocation becomes crucial, so it is argued. This study is therefore poised to discover as to whether these allegations by scholars and practitioners are true or false. The results will demonstrate.

Purpose of Study:

To assess the level of participative management in enhancing job satisfaction and performance of Christian based non-governmental organizations in northern Uganda.

Scope of the Study:

The study considered the period ranging from 2012-2019 focusing on the following Christian based organizations in northern Uganda, and they are: Compassion International, Children of the Nation, Adina Foundation- Uganda, Child Restoration Outreach and Scripture Union of Uganda.

Methods of Study:

The study focused on Northern Uganda as a case for study. Quantitative and qualitative approaches were relied upon to execute the due process of investigation. The investigation was a one-time-off and cross-sectional in orientation. The uses of primary and secondary data were considered relevant to yield appropriate and relevant results. Questionnaires and interview guide were used to collect data. Triangulation of data sources and methods of collecting data became vital for reliance on. Results have then been presented quantitatively and qualitatively as demonstrated through the statistics; and collated and vital voices of key respondents.

Results:

Bio-data of respondents:

Table 1:

S/No	Variable	Sex of respondents	Frequency	Percentage
1	Sex of respondent	Male	55	48.7
2	Sex of respondent	Female	58	51.3
3		**Total**	**113**	**100.0**

Source: Field research data, 2019

Table 2:

1.	Marital Status	Married	61	54
		Single	45	39.8
		Divorced	7	6.2
		Total	**113**	**100.0**
2.	Age(s) in years	20-30	36	32.1
		31-40	40	35.7
		41-50	22	19.6
		51-60	11	9.8
		61+	3	2.8
		Total	**112**	**100**
3.	Highest level of education	Ordinary level	3	2.7
		Advanced level	8	7.1
		Diploma level	30	26.5
		Degree level	58	51.3
		Post graduate level	14	12.4
		Total	**113**	**100.0**
4.	Years of employment	5 or less	55	49.1
		6-10	39	34.8
		11-15	15	13.4
		16-20	3	2.7
		20 and above	0	0.0
		Total	**112**	**100.0**

Field research data, 2019

Level of participative management

The study was guided and limited to the following main areas associated with participative management as follows: decision making, communication and teamwork in relation to job satisfaction and performance.

Decision making and participative management

Overall, the respondents indicated that involvement of employees in decision making was above average. It was found that 86.7% agreed that decision making makes implementation easy, and that they enjoy decision making as a process of engagement. This implies that the majority of the employees were being involved in decision making in their respective organizations.

In terms of the interviews conducted with five selected Christian based organizations, majority of the respondents pointed out to knowledge sharing, brainstorming, confidence in decision making process, seeking consensus and compromise over issues,

embracing and appreciating differences in opinions, settling expectations amicably and appreciating innovations. In one interaction, a key informant remarked as follows: "*What we do is guided by decisions that the different organizational stakeholders and staff members have made on the basis of consensus*". And that the organizations provide for innovative participation for the staff to make suggestions on issues that concern their performance and wellbeing at workplace".

On the basis of the foregoing, it is evident that employees have been working towards achieving organizational goals and objectives satisfactorily.

Communication and participative management

The respondents were to rate their level of agreement based on statements about the management's effectiveness in communicating duties and responsibilities; and the communication channels available for reporting about activities. On average, communication was rated at 62.1%, with 92.9% accepting that effective communication channels are

established for people to report suspected improprieties, while 47.8% accepted that management takes timely and appropriate follow up actions on communications received from customers, vendors and regulators being rated lowest. This implies that communication to a greater extent is practiced in the different organizations investigated.

However, 12.6% of the respondents rejected that communication is practiced in their respective organizations; with 15.1% rejecting that management effectively communicates employees' duties and control responsibilities in an effective manner; only 0.9% rejecting the fact that effective communication leads to increased productivity. The study revealed that only 25.3% of the respondents were not sure whether effective communication was practiced in their respective organizations.

A key informant acknowledged that: "*We ask for clarifications once information is not clear and do get feedbacks. And that our concerns are usually effectively responded to in time". We are working under clear instructions and directions which are made known to us. Because of this employees have morale in working, and as a result we are always committed to work and perform better*" (Source: Interview with key informant, 2019).

Teamwork in participative management

Overall and on average, 59.3% of the respondents accepted that team work is practiced in Christian NGOs, with 86.6% accepting that working as a team inspires people to do their best, 61.9 percent of the respondents accepted that team members understand one another's roles; and 44.2% accepting that when an individual's role changes, an intentional effort is made to clarify it for everyone to know and appreciate. This implies that team work is practiced in the Christian NGOs in northern Uganda.

While an average of only 11.3% of the respondents rejected that team work is not practiced in the respective organizations, with only 18.6% rejecting that team members frequently go beyond what is required and do not hesitate to take initiative. A key informant asserted that:

> "*I must have a highly motivated team to get good results and I cannot keep a team highly motivated without challenging work related to good job performance. My primary task is to develop and maintain a high performance team through continuous team building efforts*" (Interview, 2019).

From the interviews conducted, majority of the respondents pointed out to the presence of consistence, social collaboration, meeting expectations, increased output, motivation and love by the leadership of top management. One administrator remarked: "*We always work as a team to enhance our output as an organization and also to cover up the different gaps that would be left by an employee who may not be available at a particular time of work*"(Source: Interview with an Administrator, 2019). Based on the foregoing result, it is evident that team work is key in performance realization in organizations.

Discussion of Results

Decision making in participative management

The study results support the argument by Jongjoo & Houston (2009) who argued that participative management balances the involvement of both superiors and subordinates in information sharing, problem solving and decision making as a whole. Participatory theory and practice enables employees prefer and appreciate their work by playing a role in making decisions about their work. It corroborated from the findings that employees enjoy their work once they are involved at various levels of decision making process of the organization.

The study result also agrees with Shagholi, Hussin, Siraj, Assadzadeh & Al-Hejaili (2010) where it is further adduced that participatory management is crucial in effective job satisfaction and performance of employees. They noted that granting employees freedoms to participate in decision making and sharing information facilitates and inspires confidence among them. Nahrgang & Morgeson (2007) further insinuated that positive and frequent interactions with supervisors are likely to direct subordinates' citizenship behaviors much more towards the organization rather than fellow co-workers.

Communication in participative management

The study results agree with Gruber & Thompson (2015) who stated that, basing on the fact that information-rich environments have profound implications for leading and motivating employees in new workplace, where employees emphasize workplace experience akin to their consumer and information experience. To this extent, it is argued that the collection of information and communication management is of major importance for an organization to grow and develop much faster.

The study further agrees with Manyika, Bughin, Dobbs & Roxburburgh (2011) who noted that communication of strategies not only helps in discussing the plans and effective management of organizational strategies with the employees, but also aids in the process of persuasion.

Teamwork in participative management

The study results are in line with the findings of Lindh, Tamparo & Dahl (2009) who stated that the importance of teamwork can be explained in terms of building employee morale and getting results well accomplished, with the resources you have since the

team members tend to develop ownership of solutions to a problem identified; and want to ensure that various organizational activities are effectively and efficiently operational. In this regard, worker participation also expands and develops in terms of individual capabilities while evoking a broader outlook and commitment to the organization. All of these benefits work towards a more productive atmosphere in the organization. Kaner (2014) further noted that one of the responsibilities of self – organizing teams is to take and appreciate decisions that respect everyone's opinion. On this premise, it is clear that team commitment becomes an important factor in an organizational development, which can be strengthened further more by giving teams the room to make decisions as a group.

Conclusions on the level of participative management in organizations

Based on the key constructs of the study which are: decision making process, communication and team work in organizations, it became clear that the majority of the respondents agreed that these constructs are fundamental in enhancing employees' productivity, job satisfaction and employee performance. It is discovered that top management, middle management staff and lower level employees should all appreciate these elements when executing their respective duties and responsibilities at work place. It became clear that there is a positive relationship between participative management and employees' productivity, job satisfaction and performance enhancement as discovered in the organizations studied.

The study reveals that the involvement of employees in decision making, effective communication channels available to employees; and team building and spirit are vital ingredients in performance enhancement in organizations.

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BUDDHISM-INDUCED WORKPLACE SPIRITUALITY ON INTRINSIC JOB SATISFACTION: A PENETRATION FROM THREE CONSTITUENTS OF BUDDHIST MORALITY

Dipak Bastola*

Abstract

This article titled, Buddhism-induced workplace spirituality on intrinsic job satisfaction: a penetration from three constituents of Buddhist morality strives to unearth the crispy conceptual perspectives of the workplace spirituality, three constituents of Buddhist morality, and intrinsic job satisfaction to explore the association of contextual dimensions of three constructs to scrutinize the potential impact or influence of three constituents of Buddhist morality: Right speech, Right Action, Right Livelihood on workplace spirituality and intrinsic job satisfaction. The entire study is based on secondary data as the secondary data of the aforementioned three theorems has been meticulously investigated and analyzed to obtain required data, facts, and information as a literature flashback. In conclusion, through conceptual intervention, not only significant association or semblance has been witnessed among those three constructs; Workplace spirituality, Three constituents of Buddhist morality, and Intrinsic job satisfaction but also the proposition of the 21st-century Buddhism-induced workplace spirituality module has also been found extremely inevitable through the incorporation of three constituents of Buddhist morality in workplace spirituality to amplify or magnify the individual spirituality of working people to augment the intrinsic job satisfaction which is associated with greater individual performance, organizational combativeness, and institutional strength.

Key Words: Workplace spirituality, Intrinsic job satisfaction, Three constituents of Buddhist Morality Buddhism.

Paper Type: Conceptual Paper

Introduction:

Spirituality has been remarkably recognized as a source of inspiration (Chawla and Guda, 2013). Workplace Spirituality was acknowledged to be positively associated with job satisfaction (Gupta, Kumar, and Singh, 2014), unit-level performance (Fry et al., 2011), and organizational performance (Fry and Laura, 2006). Buddhism as a philosophy and a secular theology hasn't been expedited or inquired to establish an analogy between workplace spirituality and intrinsic job satisfaction. Consequently, this study's attempt can be a milestone to discover the effect of spirituality from the three constituents of Buddhist morality on intrinsic job satisfaction. This literary initiation will catapult a fundamental paradigm transmutation via the amalgamation of applied Buddhism in emerging management philosophy viz. workplace spirituality to accelerate intrinsic job satisfaction. Similarly, it's far predicted that it'll have a significant impact not only in the policy formulation regarding the enhancement of intrinsic job satisfaction of an organization with the praxis of applied Buddhism but also in evolving management literature as well as in concurrent Buddhism to add one landmark block of knowledge through new theorization.

Conceptual Operation of Workplace Spirituality

Although there are different definitions of workplace spirituality, there is no consensus on the definition of this concept alone (Pardasani, Sharma, and Bindlish, 2014). It is said that "spirituality reflects our desire to find meaning and purpose in life and is a process of living a personal set of deeply held values" (Neck and Milliman, 1994). It encompasses the "purpose and purpose in life as well as the personal values" that are kept by individuals as essential. According to some work ethic books, it is "a framework of organizational principles evidenced by a culture that promotes the experience of employees moving forward with the work process, facilitating their sense of communication in a way that conveys a sense of completeness and happiness" (Jurkiewicz and Giacalone, 2004).

People work with not only their hands but also their hearts (spirit). It is when people work with their hearts or spirit that they find meaning and purpose, a kind of fulfillment that means the workplace can be a place where people can express their whole selves and be fulfilled. Enabling the expression of human experience at its deepest, the most spiritual level may not only reduce stress, conflict, and absenteeism, but also enhance work performance (Krahnke, Giacalone, and Jurkiewicz 2003). Spirituality is seen increasingly as an important factor in the workplace (Neal, 1997; Ashmos and Duchon, 2000; Korac-Kakabadse, Kouzmin, and Kakabadse, 2002; Krahnke, Giacalone, and Jurkiewicz, 2003).

Dehler and Welsh (2003, 114) describe spirituality at work as a search for meaning, deeper self-knowledge, or transcendence to a higher level'. Additionally, the

sense of meaning and purpose serves as an inner source of energy that is then expressed outwardly as behavior. Tepper (2003, 183) defines spirituality as 'the extent to which an individual is motivated to find sacred meaning and purpose to his or her existence', but notes, similar to an argument made by Mitroff and Denton (1999), that spirituality is not associated with religion, God or higher powers. Ashmos and Duchon (2000) address spirituality in the workplace both from the experience of individuals and the organization's work environment. They define a spiritual workplace as one that enables the individual's expression of the inner life by performing meaningful work in the context of a community. Moreover, they developed and tested one of the first scales purporting to measure spirituality in the workplace. Milliman, Czaplewski, and Ferguson (2003) built on Ashmos and Duchon's (2000) work when they defined a spiritual workplace as one where individuals experienced meaningful work in a community. Milliman, Czaplewski, and Ferguson (2003), however, proposed that the third element of spirituality in the workplace was an alignment with organizational values, not an inner life, and their notion of alignment is similar to that of Kinjerski and Skrypnek (2004).

Intrinsic Job Satisfaction

Today, more than ever before, several employees are dissatisfied with their jobs. Satisfaction levels among staff members have been steadily declining since the 1980s, and rising trends in that regard are yet to be established. This practice, which manifests itself from all angles to us, has encouraged us to think about what we can do about the problem. The definition becomes increasingly important as people begin to understand that there must be more to work than salary (Marques and Dhiman, 2014).

It is important to note that learning job satisfaction emphasizes the process rather than the body (Spector, 1997). "Satisfaction at work is the way people feel about their jobs and the different aspects of their jobs. It is the level at which people like (satisfaction) or dislike (dissatisfaction) with their jobs" (Spector, 1997). Job satisfaction may be based on all the content of the employee's experience or some form of temporary satisfaction. In this way, there are two types of satisfaction an employee can have: intrinsic and extrinsic. One study suggests that the two categories in job satisfaction are a clear indication of whether employees like or dislike their work; what they hear about their activities and their organization (Locke, 1976). It has been studied and proven that internal satisfaction has a profound and lasting effect on the employee, which keeps the employee more committed to his or her work in addition to external satisfaction (Dandona, 2013). External satisfaction is achieved when an organization rewards an employee for good work, either in the form of promotions or pay cheques. One source defines inner satisfaction as "a person's attitude toward the things related to such work success, responsibility, progress, and maturity" (Herzberg,

2008). This kind of satisfaction is closely related to the employee's spirituality. Herzberg's two-dimensional theory of job satisfaction, in which job satisfaction is considered two, includes motivation and hygiene factors (Herzberg, 2008). This concept of job satisfaction has been used extensively in previous work (Hur. 2018; Kotni and Karumuri, 2018) several, some of which are internal, such as self-confidence, personal growth, success, and employee readiness (Matthews, Daigle, and Houston, 2018). Maslow's theory is further divided into categories of physical needs, need for security, participation and love needs, esteem needs, and needs for your own (Maslow, 1981). Spirituality is primarily concerned with the last three stages: participation and the need for love, the need for respect, and the need for self-reliance (Dandona, 2013).

Three Constituents of Buddhist Morality

In terms of Buddhist spirituality, this study focuses mainly on three constituents of Buddhist morality to incorporate the similarities between Buddhism-induced workplace spirituality and intrinsic job satisfaction that is widely described as Sammā-Vācā (Right Speech), Sammā-Kammanta (Right Action), and Sammā-Ājiva (Right Livelihood) of the Eightfold Path. The eight constituent parts of the path are set out in the fourth of the Four Noble Truths, which are the most basic teachings of the Buddha. The Noble Truth of the Practical Way That Leads to the Eradication of Suffering (Dukkha-Nirodha-Gāmini Patipadā-Ariya-Sacca) is called the noble eightfold path (Ariyo-aṭṭhangiko-maggo). (Krishnasamy, 2014).

Regarding the three constituents of Buddhist morality namely Right Speech, Right Action, and Right Livelihood, the appropriate pronunciation is found in Saccavibhaṃga Sutta 141 of MajjhimaNikāya of Tipiṭaka:

"And what, friends, is right speech? Abstaining from false speech, abstaining from malicious speech, abstaining from harsh speech, and abstaining from idle chatter—this is called right speech."

"And what, friends, is right action? Abstaining from killing living beings, abstaining from taking what is not given, and abstaining from misconduct in sensual pleasures—this is called right action."

"And what, friends, is right livelihood? Here a noble disciple, having abandoned the wrong livelihood, earns his living by right livelihood—this is called right livelihood." (Nanomali and Bodhi. 2009).

The elaboration of three constituents of Buddhist morality

Right Speech

Right speech means telling the reality to the most effective of one's abilities, not creating divisiveness by telling different people various things, refraining

from making cruel statements, and refraining from overstatements (Hạnh Nhất. 2015). An excellent way of fostering the correct speech is listening because listening enables us to significantly internalize and evaluate others' words and intentions before responding. This could clarify how the right view and right intention are embedded into the proper speech. The rationale of right speech in Buddhism-induced workplace spirituality is not only to help people cultivate the virtue of right speech i.e., abstaining from false, harsh, malicious, idle speech but also to facilitate people to fulfill their intrinsic job satisfaction through the accomplishment of spiritual needs.

Right Action

Right action starts, oddly enough, with the discontinuation of unethical action: the action of harming ourselves also (Hạnh Nhất. 2015). This also means no killing, no stealing, and not engaging in any style of misconduct. Because temptation is all around us, it isn't as easy because it could seem to interact with the right action. Right action is conceived to cultivate or nurture not only ethical behaviors but also to let positive vibes, decisive thought, and spiritual temperament emerge or evolve in a corporation that's perceived as an indispensable or constructive environment for workplace spirituality. Especially The five ethical vows to nourish virtue disclose or unpack the moral proposition in any organization to determine spiritual temperament or etiquette i.e., refraining from killing, stealing, lying, sensuality, and intoxication. Encompassing the right action in organizational culture and tradition is not only the need of the hour to foster workplace spirituality but also the requirement of the 21st century to realize the spiritual needs to acquire intrinsic job satisfaction.

Right Livelihood

Right livelihood focuses on the character of the work one does, and whether this can be constructive or not. Hạnh Nhất. (2015) suggests several critical questions one could reflect on to confirm the right livelihood, such as, a) whether one is producing, dealing in, or promoting weapons of any kind that are getting used to kill and destroy; b) whether one is engaging in practices where people are blatantly being taken advantage of or c) whether one is involved within the production and/or promotion of destructive products like alcohol and medicines. The crux of the right livelihood is to bolster or cherish righteous and virtuous ways of living life which ultimately stimulate or provoke a spiritual working environment. The stark inspiration for workplace spirituality through the right livelihood not only fosters individual spirituality but also embraces intrinsic job satisfaction.

A scholastic penetration of three constituents of Buddhist morality on Workplace spirituality and intrinsic job satisfaction

Since intrinsic job satisfaction is profoundly associated or correlated with the spirituality of a person as a ramification of workplace spirituality, the need of the hour for every organization across the world is to enhance the individual spirituality as much as possible through the praxis or empirical implementation of three constituents of Buddhist morality i.e. Right speech, Right action and Right livelihood to establish workplace spirituality. Hence, Buddhism-induced workplace spirituality refers to the spiritual leverage which can be achieved through the experimental practice of three constituents of Buddhist morality. More, Right speech encompasses the virtues of abstaining from false, malicious, harsh, and idle speech as this spiritual practice should be embedded in an organizational culture not only to maintain a cordial working environment but also to let people of an organization have this spiritual etiquette spontaneously whenever communication, conversation or interaction take place. So, right speech is one of the fundamental spiritual traits to strengthen a person's morality.

Further, Right action refers to abstaining from killing living beings, taking what is not given, and getting involved in misconduct sensual pleasure as it is also significantly deemed as spiritual virtue to enhance individual spirituality by incorporating this right action practice in organizational culture or principles. Hence the empirical application of this spiritual demeanor assists people of an organization not only to excel to achieve their spiritual needs but also guides them to fulfilling their intrinsic spiritual needs. In addition, the right livelihood explains to avoid practicing the wrong livelihood i.e., the business of killing living beings, the business of trafficking living beings, the business of harming living beings, societies, nations, and the entire world. This is another significant spiritual virtue as people of an organization should comprehend the essence of this component of morality. The practice of this morality not only accelerates individual spirituality but also generates the foundation for the people of an organization to quench their spiritual needs as well as to maintain workplace spirituality.

Thus, going through the aforementioned interpretive penetration, Workplace spirituality is a cardinal ethos of management that not only boosts the individual spirituality of the people of an organization but also facilitates the working people to fulfill their spiritual needs to enhance intrinsic job satisfaction. Henceforth, feeling of connectedness, compassion, mindfulness, meaningful work, and transcendence are the outcomes of workplace spirituality which ease people to acquire their spiritual desires, needs, and requirements to ultimately augment the intrinsic job satisfaction which emerges not only from pay cheques or physical facilities but also from achievement, challenging task, socialization opportunities, self-respect, and self-actualization needs. Herein after, some rudimentary

doctrines of applied Buddhism such as the three constituents of Buddhist morality viz. Right speech, Right action, Right livelihood, and its pragmatic practice or application in the workplace of every organization helps to generate Buddhism-induced workplace spirituality to excel the individual spirituality of working people ultimately to help fulfill their spiritual requirements to increase intrinsic job satisfaction which is associated with more productivity, profitability, competitiveness and business strength through the intrinsic motivation of the people of an organization. Therefore, the utilitarian or logical praxis of the three constituents of Buddhist morality in an organization prominently propels the required virtues of human beings to adhere to or comply with the individual, workplace, and social morality which not only helps understand the spiritual needs and requirements but also attain the intrinsic job satisfaction that is correlated with incredible individual performance, productivity, and motivation. In the end, the 21st-century organization requires to magnify or mount the individual spirituality since people come to work not only with their hands but also with their hearts (Spirits) as well as to help them fulfill their spiritual needs of connectedness, compassion, mindfulness, meaningful work and transcendence to embellish their intrinsic job satisfaction through the Buddhism induced workplace spirituality i.e., the practice of three constituents of Buddhist morality.

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EFFECT OF SOIL BLOCK COMPOSITION ON SEEDLING GROWTH AND YIELD OF TWO CHINESE KALE CULTIVARS

Pul Pech, Mardy Serey and Sinath Chea*

ABSTRACT

Chinese kale is one of the most popular vegetables in Cambodia. The objective of this study was to investigate the effect of soil block composition on seedling growth and yield of two Chinese kale cultivars. The experiments were arranged in a Factorial Randomized Block Design with two factors. The first factor was Chinese kale varieties (V): V1 (big leaf variety) and V2 (small leaf variety) and the second factor was soil block (SB): SB1 (15% cow manure, 5% chicken manure, 40% coconut husk and 40% soil), SB2 (20% cow manure, 10% chicken manure, 35% coconut husk and 35% soil), SB3 (25% cow manure, 5% chicken manure, 30% coconut husk and 40% soil) and SB4 (30% cow manure, 10% chicken manure, 25% coconut husk and 35% soil). There were 8 treatment combinations with 4 replications with 32 experimental units. The total yield of V1 was significantly higher than that of V2 planted 46 days after sowing. The significant interaction between Chinese kale varieties and soil block was observed with the highest yield of V1 in SB3.

INTRODUCTION

Chinese kale (*Brassica oleracea* L.var. *alboglabra* Bailey) is a popular cruciferous vegertable. Chinese kale like other vegetables is an important source of nutrients for human and animals. The 100 grams of Chinese kale contains 47 calories ,water 85.2 ,%protein 13.4g ,fat 0.4g ,fiber 1.6g, ash 1.1g ,Ca 40mg, P 74 mg, Na 14mg, k 480mg, carotene 50 MCg, Thiamin 16 mg, ascorbic acid 71mg (Sok, 2005(. It is cultivated widely in South China and Southeast Asia and is present in relatively small quantities in Japan, Europe, and America (J. Zhang and L.G. Zhang, 2013). Cambodia has a total cultivation area of 57,018 hectares for vegetables and yields of 639,513 tons. The production volume is greatly far from the current local demand. One of the factors that limit the yield of vegetables, including Chinese kale, is how to produce a healthy seedling.

Vegetables can be planted by direct seeding and transplanting. The latter requires a good and suitable growing media to produce a healthy seedling before transplanting in the field. Growing seed in a soil block is one method that can be replaced with a plastic tray in the production of Chinese kale transplants. Soil block is a block of growing medium that has been properly compressed, so they maintain their shape to grow vegetable seed. It also assists the root growth by air pruning, creating a substantial advantage when seedlings are transplanted into the field, reduced root disruption means they are less prone to transplant shock (Johnny's selected seeds, 2016).

The application of soil block composition is expected to improve soil fertility and to increase the growth and yield of Chinese kales significantly.

The use of superior varieties also contributes to an increase of Chinese kale production. Planting superior Chinese kale varieties on the appropriate soil condition has improved the Chinese kale production due to proper interaction between plant genotype and its environment.

MATERIALS AND METHODS

The research was conducted in Lvea Village, Krous Commune, Svay Chrum District, Svay Rieng Province and at Agricultural Science Laboratory, Faculty of Agriculture, Svay Rieng University, from February - October 2020.

2.1. Experimental design

Randomized Block Design (RBD) was employed in this research with 2 factors observed: soil block (SB) with 4 different doses: SB1 (15% cow manure, 5% chicken manure, 40% coconut husk and 40% soil), SB2 (20% cow manure, 10% chicken manure, 35% coconut husk and 35% soil), SB3 (25% cow manure, 5% chicken manure, 30% coconut husk and 40% soil) and SB4 (30% cow manure, 10% chicken manure, 25% coconut husk and 35% soil) and the second factor was Chinese kale varieties (V): V1 (big leaf) and V2 (small leaf). There were 8 treatment combinations with 4 replications, totaling 32 experimental units.

2.2. Soil block production

The soil block mixture was prepared with extreme caution. All ingredients were prepared and stored for 3 months and 15days before being mixed according to each set recipe. There were three steps to mixing soil blocks: Step :1Cow manure is mixed with chicken manure to mix the two ingredients evenly. Step :2 Coconut husk mixed with soil, mix the two raw materials to mix well and Step :3Mixed cow manure

and chicken manure with a mixture of coconut husk and soil to well mixed. After mixing the raw materials, according to each formula, add water to 1.5percent of the total volume of each raw material and then mixed the soil block mixtures to make it sticky before started work. The soil blocker was 4.5cm × 4.5cm × 4.5cm by gradually building soil blocks and planting seeds gradually.

2.3. Field Experiment

2.3.1. Seedling experiment

This experiment was carried out in 6 main steps: Step 1: dredged twice for a total of 20 days to get rid of weeds and insects and their eggs. Step 2: prepared to build a laboratory that was 8 meters length and 6 meters wide, covered by green nets and surrounded by white nets. Step 3: prepared the soil so it is well leveled and then divided the plan in to 4replications, 8 treatments and 32experimental seedlings. Step 4: layered 40cm × 50cm plastics on the each experimental units. Step 5: removed the pieces of soil block mixtures which typed and dropped the seeds bring in to laboratory to plant. In each of the experimental units were 80 pieces of soil blocks. Step 6: take care and water 250ml on each experimental units daily.

2.3.2. Transplant experiment

In this experiment, the soil was dried twice: the first time for 11 days and the second time for 10 days, for a total of 21 days for drying and weeding. Experiment cleanly. The experimental plan was divided into 4 replications, 8 treatments and 32 experimental units and the size of each field were 2 square meters. The experimental design was designed in the same way as the seedling experimental design. The seedlings were removed from the suffix and replications of the experimental plot. The seedlings were planted in the field to match the suffix and the replications. Fertilizer application in each field was divided into three stages: Stage 1: 3kg of cow manures and diammonium fertilizer 20g were applied to the bottom of the soil by

cutting it into the ground one day before transplanting. Stage 2: When the seedlings were transplanted for 7 days, used 10 grams of nitrogen fertilizer mixed with 5 liters of water; stir thoroughly, water over the Chinese kale and stage 3: Applied 10 grams of nitrogen fertilizer mixed with 5 liters of water, stir and water the kale after transplanting for 17 days.

2.4. Parameters and statistical data analyses

Plant height, weight per plant, dry weight per plant, root length, root weight per plant, leaf length, leaf width, number of leaves, stem width, weight/m^2 and total yield per hectare were observed in these experiments.

Statistical analyses were performed using IBM SPSS Statistics 24.0 (IBM Corp., Armong, NY, USA). The data were analyzed by two-way analysis of variance. The means were compared using Duncan's multiple range test (DMRT) at $P \leq 0.05$.

RESULTS AND DISCUSSIONS

3.1. Results

3.1.1. Plant Height and Weight per Plant

The results showed that soil block doses and significantly increased the plant height at 20 days after showing (DAS). The applications of 20% cow manure + 10% chicken manure + 35% coconut husk and 35% soil and 15% cow manure + 5% chicken manure + 40% coconut husk and 40% soil were indicated the highest result and Chinese kale var. V1 big leaf exhibited the result compare to var. V2 small leaf in all variables observed. Weight per plants was increased at 20 days after showing and the applications on two Chinese kale varieties did give significant effect in each observation. The highest weight per plant was found in Chinese kale var. V1 big leaf at 20 DAS with the application of 15% cow manure + 5% chicken manure + 40% coconut husk and 40% soil (Table 1).

Table 1. Application of soil block composition on Chinese kale varieties, pant height and weight per plant.

Treatment	Plant height (cm)	Weight per plant (g)
Soil block (SB)		
SB1	12.55 a	1.38 b
SB2	12.59 a	1.58 a
SB3	11.49 b	1.38 b
SB4	10.54 c	1.13 c
Variety (V)		
V1 (big leaf)	13.19 A	1.52 A
V2 (small leaf)	10.54 B	1.22 B
SB* Var		

Sb1v1	14.81 a	1.76 a
Sb2v1	13.56 b	1.52 a
Sv3v1	12.37 c	1.54 a
Sb4v1	12.02 cd	1.25 b
Sb1v2	10.29 e	1.01 b
Sb2v2	11.61 d	1.64 a
Sb3v2	10.62 e	1.21 b
Sb4v2	9.06 f	1.01 b

Means followed by the same letters are not significantly different based on the DMRT test at 0.05 level

3.1.2. Percentage of water content per plant and Dry weight per plant

The results of ANOVA exhibited insignificant results of soil blocks application on percentage of water content per plant but it's significant between both Chinese kale varieties. For the dry weight per plant, the application of 20% cow manure + 10% chicken manure + 35% coconut husk and 35% soil was the best. It exhibited the highest dry weight per plant compare to SB1 (0.08g) and SB4 (0.07g) but insignificant to compared to SB3. Also, Chinese kale variety V1 big leaf possessed higher dry weight per plant (0.09g) compared to var. V2 small leaf (0.07g) due to soil block application (Table 2).

Table 2. Application of soil block composition on Chinese kale varieties, percentage of water and dry weight.

Treatment	Percentage of water content per plant (%)	Dry weight per plant (g)
Soil block (SB)		
SB1	93.35 a	0.08 ab
SB2	93.67 a	0.10 a
SB3	93.77 a	0.09 a
SB4	93.88 a	0.07 b
Variety (V)		
V1 (big leaf)	93.46 B	0.09 A
V2 (small leaf)	93.88 A	0.07 B
SB* Var		
Sb1v1	93.18 b	
Sb2v1	93.19 b	
Sv3v1	94.31 ab	
Sb4v1	93.17 b	
Sb1v2	93.52 b	
Sb2v2	94.15 ab	
Sb3v2	93.24 b	
Sb4v2	94.59 a	

Means followed by the same letters are not significantly different based on the DMRT test at 0.05 level

3.1.3. Leaf length per plant and Leaf width per plant

The application of soil block possessed significant increase on Leaf length per plant and Leaf width per plant between 2 varieties. The application of 25% cow manure + 5% chicken manure + 30% coconut husk and 40% soil exhibited highest leaf length per plant and leaf width pre plant compared to other treatments. Chinese kale var. V1 big leaf indicated the best result on leaf length per plant and leaf width pre plant (9.25cm and 3.35cm) compared to var. V2 small leaf (Table 3).

Table 3. Application of soil block composition on Chinese kale varieties, leaf length and leaf width

Treatment	leaf length (cm)	leaf width (cm)
Soil block (SB)		
SB1	7.35 c	2.93 ab
SB2	7.81 b	3.16 a
SB3	8.60 a	3.19 a
SB4	6.70 d	2.91 b
Variety (V)		
V1 (big leaf)	9.25 A	3.35 A
V2 (small leaf)	5.98 B	2.75 B
SB* Var		
Sb1v1	8.95 b	3.42 b
Sb2v1	10.01 a	3.88 a
Sv3v1	9.80 a	2.80 c
Sb4v1	8.23 c	3.29 b
Sb1v2	5.74 e	2.44 c
Sb2v2	5.62 e	2.45 c
Sb3v2	7.41 d	3.58 ab
Sb4v2	5.17 f	2.52 c

Means followed by the same letters are not significantly different based on the DMRT test at 0.05 level

3.1.4. Number of leaves per plant and Plant height

The application of soil block also demonstrated significant effect on a number of leaves per plant and plant height. The application of 25% cow manure + 5% chicken manure + 30% coconut husk and 40% soil improved the number of leaves per plant and plant height (5.97 leaves and 35.08cm). For the Chinese kale varieties, var. V1 big leaf indicated the best results on its number of leaves per plant and plant height (5.90 leaves and 34.28cm) compared to V2 small leaf (Table 4).

Table 4. Application of soil block composition at field on Chinese kale varieties, number of leaves per plant and plant height per plant.

Treatment	Number of leaves per pant (leaves)	Plant height (cm)
Soil block (SB)		
SB1	5.65 b	28.64 c
SB2	5.80 ab	32.45 b
SB3	5.97 a	35.08 a
SB4	6.02 a	28.65 c
Variety (V)		
V1 (big leaf)	5.90 A	34.28 A
V2 (small leaf)	5.82 A	28.13 B
SB* Var		
Sb1v1	5.90 ab	31.89 c
Sb2v1	5.90 ab	35.02 b
Sv3v1	5.95 ab	38.54 a
Sb4v1	5.85 ab	31.66 c
Sb1v2	5.40 b	25.39 e
Sb2v2	5.70 b	29.88 d
Sb3v2	6.00 ab	31.62 c

Sb4v2	6.20 a		25.65 e

Means followed by the same letters are not significantly different based on the DMRT test at 0.05 level

3.1.5. Weight per plant, Weight per square and total Yield

The results showed that the application of 25% cow manure + 5% chicken manure + 30% coconut husk and 40% soil has enhance the weight per plant, weight per square and total yield (91.62g, 2.29kg and 22.91tons) and the significant increase occurred in Chinese kale var. V1 (75.06g, 1.87kg and 18.78tons) compared to V2 (Table 5).

Table 5. Application of soil block composition at field on Chinese kale varieties, weight per plant, weight per square and total yield.

Treatment	Weight per plant (g)	Weight per square (kg)	Yield per hectare (tons)
Soil block (SB)			
SB1	46.75 d	1.16 d	11.70 d
SB2	73.25 b	1.83 b	18.32 b
SB3	91.62 a	2.29 a	22.91 a
SB4	60.00 c	1.49 c	15.01 c
Variety (V)			
V1 (big leaf)	75.06 A	1.87 A	18.78 A
V2 (small leaf)	60.75 B	1.51 B	15.19 B
SB* Var			
Sb1v1	59.00 e	1.47 e	14.77 e
Sb2v1	80.75 c	2.02 c	20.20 c
Sv3v1	97.25 a	2.43 a	24.32 a
Sb4v1	63.25 d	1.58 d	15.82 d
Sb1v2	34.50 f	0.86 f	8.63 f
Sb2v2	65.75 d	1.64 d	16.45 d
Sb3v2	86.00 b	2.15 b	21.50 b
Sb4v2	56.75 e	1.41 e	14.20 e

Means followed by the same letters are not significantly different based on the DMRT test at 0.05 level

3.2 DISCUSSIONS

The average height of Chinese kale seedlings big leaf variety (13.19cm) was higher than the average height of Chinese kale seedling small leaf variety (10.54cm). This difference was due to the composition of the soil block mixture and the biological characteristics of each variety. The seedlings that can be planted should be 18 to 20 days old and 8cm to 12cm tall) MAFF, 2008). Made Deviani Duaja *et all* (2015) showed that the plant height using Solid chicken litter 20.0 ton ha1 with a height of 11.11cm was lower than the height, due to lower fertilizer effect than planting in the soil block. However, according to research by Mai Vu Thi *et all* (2013) showed that the used of rice husk charcoal mixed with soil (10:2) height of 19.73cm at the age of 3 weeks was higher than this difference caused by the effectiveness of each fertilizer. Genetic differences led to plant response to the environment, resulted in different plant growth and development (Safwand *et all*., 2021).

Percentage of water content of Chinese kale seedlings per plant, small leaf variety, (93.88%) more than the average percentage of water content of Chinese kale seedlings per plant, big leaf variety, (93.46%). This difference was due to the biological characteristics of each species. According to a study by Wong Kau Choo and Lee Eng Kee (1974) the percentage of water content of Chinese kale (86.10%) was lower than the percentage of water content per plant because water storage capacity was better than direct planting.

The average number of Chinese kale leaves per plant big leaf variety (5.90 leaves) and the average number of Chinese kale leaves per plant small leaf variety (5.82 leaves) were similar because the two cultivars were grown under the same conditions and in the group of Chinese kale that harvests both stems and leaves alike. According to a study by LEI Jianjun *et all* (2017) showed that Chinese kale were divided into three forms based on its edible characteristics and distribution: first, the variety eats both stems and leaves second, the

variety harvest only stems and the third, varieties of Chinese kale harvest only the leaves. However, a study by Shiwei Song *et all* (2011) showed that the number of leaves per plant of 11 was high, caused by the high bio-organic fertilizer application (720g).

The average height of Chinese kale per plant big leaf variety (34.28cm) and the average height of Chinese kale (28.13cm) were differed, due to the influence of the composition of the soil block mixture and the variety. Big leaf varieties were more resistant to weather conditions than small leaf varieties. According to a study by Shiwei Song *et all* (2011) showed that the bio-organic fertilizer application of 720g was obtained at a height of 34.53cm, with a similar stem height due to the similar effect of the two fertilizers. However, according to research conducted by Made Deviani Duaja *et all* (2015) the height of plants using Solid chicken manure 20.0 ton ha1 with a height of 25.90cm were lower, due to lower fertilizer effect than planting on the soil block. The maximum plant height was in chicken manure where as the cow manure gave the lowest in height plant (S. Detpira Mongkol et all., 2014).

The average weight of Chinese kale per plant big leaf variety (75.06g) and the average weight of Chinese kale per plant small leaf variety (60.75g) were different, due to the effect of the composition of the soil block mixture and the big leaf variety were resistant to weather conditions better than small leaf variety. According to a study by Shiwei Song *et all* (2011) the bio-organic fertilizer of 720g was 54.23g per plant, with a lower weight per plant, caused by the bio-organic fertilizer had lower effects than the fertilizer grown on the block.

The average weight of Chinese kale per square meter of big leaf variety (1.87kg) and average weight per square meter of small leaf variety (1.51kg) were differed, due to the compositional effects of the soil blocks and big leaf variety were more resistant to weather conditions than small leaf variety. According to a study by Pattanachatchai *et all* (2021) good agricultural practices yielded per square meter (2.26 kg) were heavier per square meter than planting on soil blocks caused by different levels of used and type of fertilizers.

The total yield of big leaf variety (18.78 tons) and the total yield of small leaf variety (15.19 tons) were differenced, due to the effect of the composition of the soil block mixture and the big leaf variety were more resistant to the weather conditions better than small-leaf variety. According to a study by Wong Kau Choo and Lee Eng Kee (1974) were applied inorganic fertilizer 447 kg / ha (15% nitrogen, 15% phosphorus, 15% potassium) yielded a total yield of 18.02 tons. Total yields were similar, due to the effectiveness of these two fertilizers with similar nutrients. However, according to a study by Mr. Mong Vandy, 2002, the total yield of organic fertilizer mixed with inorganic fertilizer was between 20 and 22 tons / ha, which was higher than the field experiment due to the amount of fertilizers that give the crop different levels.

In this research, the application of soil blocks compost revealed the best performance in Chinese kale var. V1 big leaf compared to V2 small leaf. Variety V1 big leaf performed better in leaf length, leaf width, plant height, dry mass per plant, fresh weight per plant, fresh weight per square and total yield. This finding was related to genetic factor, where the genes responsible for plant growth and yield of Chinese kale. These genetic differences led to response to the environment, resulted in different plant growth and development (Saf wand *et al.*, 2012). In this research, both varieties showed good ability in adapting to the environment. However, var. V1 big leaf revealed better resistance of environment and pest. Chinese kale grows best in temperature of 64 – 82°F (18 – 28°C) (Food Plant Product, 2016) but can tolerated Svay Rieng' hotter temperatures and cultivated year round in Svay Rieng.

4. CONCLUSIONS

The produced soil blocks were suitable for cultivating both moisture and soil blocks in shape and size. The application of 25% cow manure + 5% chicken manure + 30% coconut husk and 40% soil significantly affected components of Chinese kale production. The big leaf variety grown better and had higher yields than the small leaf variety. The result suggest that application of 25% cow manure + 5% chicken manure + 30% coconut husk and 40% soil is suitable to grow big leaf variety.

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PRODUCTION QUALITY PLAN FOR CONCRETE

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This is a summary from the paper written for the St Clements University Doctor of Letters degree program.

Summary

This Quality Plan has been designed specifically for implementation of production and supply of a range of concrete mixes in Hong Kong as well as Mainland China.

In Hong Kong, the production and supply of concrete should be complied with the HKQAA's QSPSC certification requirements. Therefore this Quality Plan is met with this high standard and certification requirements in order to ensure the quality of concrete.

What is the HKQAA's QSPSC certification?

HKQAA published the Regulations in August 1991. The Works Bureau (Works Branch) via Technical Circular No. 3/94 dated 8 March 1994 endorsed the requirement specifying that producers supplying concrete to government projects in Hong Kong must be certified to QSPSC^{TM}. WBTC No. 3/94 was superseded on 1st January 2003 by a new requirement from the Environment Transport Works Bureau via Technical Circular (Works) No. 57/2002, which states:

> Structural concrete for all public works contracts must be obtained from concrete suppliers who are certified under the QSPSC^{TM}, except for those located at remote areas (such as outlying islands) or where the volume of structural concrete involved is less than 50m3. Even for those "exceptional" projects, structural concrete should be obtained from a supplier operating a quality system approved by the Architect/Engineer.

HKQAA is the only certification body accredited by both United Kingdom of Accreditation Services (UKAS) and Hong Kong Accreditation Services (HKAS) to issue QSPSC^{TM} certificates.

Certification Standard

QSPSC^{TM}, administered by HKQAA, is a Product Certification Scheme that consists of two parts, i.e. Administrative Regulations and Technical Regulations.

System and Testing Requirements

The Scheme requires suppliers to operate in accordance with ISO 9001 requirements concurrently. All selected concrete sample must be subject to testing carried out by HOKLAS (Hong Kong Laboratory Accreditation Scheme) accredited laboratories. Test report issued by HOKLAS accredited laboratories shall be submitted to HKQAA for verification of compliance to the specification as a condition for granting certificates. Significant Processes under QSPSC^{TM} planning to meet quality requirements including basis of supply, quality requirements, concrete mixes, design mixes and environmental impact, production including quality control of purchased materials, production control and environmental impact control, product quality control, training, trial mix, review of quality system, and maintaining records to permit traceability of raw materials, concrete and tests on both.

Advantages of this Quality Plan for Certification

1. Fulfills government contractual requirement.
2. Demonstrates capability to deliver up-to standard concrete.
3. Differentiates concrete production facilities that have been assessed by the authoritative certification body in this industry sector.

There are major elements of this quality plan as below:

1. Management Resource for Manufacturing
2. Operations and Process Control Flow Chart
3. Control of Concrete Mixes Data Processing
4. Control of Orders Processing
5. Control of Weighing / Batching Equipment Maintenance
6. Control of Measuring Equipment Calibration
7. Receiving Inspection of Materials
8. Materials Control For Production
9. Handling and Storage of Materials
10. Pre-Production Process Control
11. Production Process Control
12. Concrete Quality Control
13. Concrete Identification and Traceability
14. Handling, Storage & Delivery of Concrete
15. Control of Nonconforming Materials / Concrete
16. Management of Quality Records

The achievements of some elements in the quality plan such as;

1. Management Resource for Manufacturing

The Works of Quality Control can be allocated effectively with the responsible persons including Production Manager, QA Manager & Laboratory Officer and etc.

2. Operations and Process Control Flow Chart

The relationship between the daily operations of production of concrete and the process control for implementation are effectively addressed. This provides a clear and simple flow chart.

3. Production Process Control

This is to ensure the effectiveness in carrying out of each production operation by the Batching Plant Operator under the supervision of the Batching Plant Supervisor of the Company, the following guidance is given to the Batching Plant Operator by means of a Handbook titled "Batching Plant Operator Handbook" as a training material prepared by the Company before assigning the work to the Operator.

4. Concrete Quality Control

This part is designed to verify the quality of batches of concrete produced, the following controlled processes shall be carried out and completed by the Laboratory Officer and Laboratory Technician of the Company. It provides a comprehensive and well framework to conduct QA/QC to the concrete effectively and efficiently.

Good recommendations from this Quality Plan

1. The concrete batching plant should be well equipped with computerized system for conveying, weighing and batching the Aggregate, Cement, Water and Admixtures with good control of tolerances for each parts, such as within 2% for cement, water and aggregate and within 5% for Admixtures.

2. The best practice was to set up the GPS to each agitators for traceability and identification in such a way to make sure the fresh concrete would be compacted within 2.5 hours after introduction of cement to the aggregates and within 30 minutes of discharge from the plant.

3. This was very important to make sure that all plant and equipment were maintained in a clean and efficient working condition and regular routine maintenance checks should be carried out.

4. The laboratory technician should carried out the moisture content of aggregates at the laboratory despite of moisture tester were installed for further comparison of the results.

5. To make sure the changes of moisture content should be compensated in the mix proportions during the batching process through a computerized batching system by making necessary changes to the weight of aggregates and water to maintain the integrity of the agreed mix design and the w/c ratio.

6. To make sure plant operator who can calculate the changes of moisture content should be compensated in the mix proportions manually

7. The plant operator should be trained up to able for good inspection to each load of the mixed concrete before discharge.

8. To make sure the laboratory technician to carry out all testing for concrete for control purposes should comply with the CS1.

9. This is also very important that the technician can carry out moisture content, slump test, cube making and testing, sieve analysis of aggregates in daily basis effectively and efficiently.

10. To conduct the internal audit to the ISO 9001 and the testing of concrete were useful to improve the QSPSC^{TM}.

Therefore this Quality Plan is useful for practical use and relevant professionals including civil engineers and building surveyors are widely used for management and monitoring of the production and supply of concrete for their projects.

About the Author

Dr Tommy Ho is the founder of HCL Consulting Ltd. He graduated with Building Studies at the City University of Hong Kong in 1995 and then further studied in the Postgraduate Certificate in Building Engineering at the Hong Kong University SPACE. In 2012, he achieved a Ph.D in Engineering Management from the West Coast University and a Doctor of Excellence Honoris Causa issued by the CIAC Global in 2018. In 2022, he achieved the Executive Doctor of Business Administration at the European International University. At this time, Dr Tommy Ho has also committed to lifelong learning and passed with an excellent in the program of Business Sustainability Management at the University of Cambridge. He is currently a student of the St Clements University Doctor of Letters degree program. He can be contacted at tommy@hcl.hk

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