Analysis of Government Apparatus Corruption Practice in Indonesia

[1]**Irfan Setiawan**, [2]**Ayu Widowati Johannes**, [3]**Ismiyarto**, [4]**Fienny Maria Langi**, [5]**Josephus J. Pinori**

Abstract-The aim of the study is to analyze the practice of corruption in the Indonesian government and efforts to suppress corruption in the administration of government. This research was conducted with a descriptive qualitative method that discusses the phenomenon of corruption in government apparatus in Indonesia. The results of the study indicate that the practice of corruption has become an obstacle for governance by various types and levels of government administration. Greed, opportunities, needs and exposure are all factors that cause corruption. Various ways by corruptors make weak achievement of the objectives of government organizations. Corruption practices are made even more innovative, by studying gaps in the findings of financial auditors. Commitment to each element of the country is needed to improve understanding that has been formed so far. The integration of the four elements in forming an anti-corruption culture can improve understanding and anti-corruption behavior.

Keywords-corruption, apparatus, government, transparency.

I. INTRODUCTION

The implementation of regional government is expected to improve the welfare of the community through a program of activities and the implementation of the existing budget in the regional income and expenditure budget. The preparation and implementation of the budget is carried out proportionally in accordance with the conditions and resources in the area. The regional income and expenditure budget are part of the stages of the implementation of regional development that functions in the interests of improving the regional economy and for improving the welfare of the community so that accuracy and precision in the use of the budget can ultimately affect regional growth.

The practice of budget misuse carried out by the apparatus, can occur at any level and system of government, even that has happened since ancient times until now. Misuse of the budget committed by the government apparatus that causes budget leakage is done in similar ways such as reports on the use of fictitious airline tickets (Paramastri et al, 2013), the number of official travel budget that is not appropriate, fake official travel reports by attaching the original but fake tickets (ticket prices raised), fictitious purchase receipts (Rohim, 2014) or marked up, organizing fictitious technical guidance training (Wahyuni, & Tarjo, 2016), corruption in the procurement of goods and services (Handayani, 2013), and so on.

---

[1] Ifran Setiawan, Institut Pemerintahan Dalam Negeri (IPDN), Indonesia, Email: irfansetiawan@ipdn.ac.id
[2] Ayu Widowati Johannes, Institut Pemerintahan Dalam Negeri (IPDN), Indonesia, Email: ayuwidowati@ipdn.ac.id
[3] Ismiyarto, Institut Pemerintahan Dalam Negeri (IPDN), Indonesia, Email: ismiyarto@ipdn.ac.id
[4] Fienny Maria Langi, Institut Agama Kristen Negeri Manado, Email: fiennylangi@iakn-manado.ac.id
[5] Josephus J. Pinori, Universitas Sam Ratulagi, Indonesia, Email: josepusp@gmail.com

Besides that, corruption also often occurs in government service activities such as receiving money to speed up the service process (Fatkhuri: 2017), collect money for services that should be free and do not require a fee or better known as Facilitation Payments (Follett, G., 2015, Bunker & Casey, 2012). This phenomenon often occurs at various levels of government service in Indonesia. This certainly can be detrimental to other people who use government services. Because on the one hand accelerating or prioritizing services for certain communities, but on the other hand it is certainly detrimental to services for other communities who have queued up first.

Systemic corrupt practices in government services can be understood as the systematic use of government positions for personal gain resulting in low quality or availability of goods and services and services to the community. Corruption practices that are worth hundreds, millions to billions of rupiah carried out by government officials continue to occur so that it can harm the country up to trillions of rupiah. Surely this is not a number that sees little as the country's development needs are increasingly increasing. If the budget is not corrupt and really used for the benefit of the community will be able to alleviate poverty and improve the quality of education and meeting the needs of the people of Indonesia.

Corruption occurs in many countries that have weak law enforcement systems, as well as a lack of awareness of good governance so that the integrity factor is still questioned (Windarti. 2015). In fact, there are 7 reasons that are not true for not eradicating corruption (Klitgaard et al: 2000: 16-17), namely:

1. Corruption is everywhere,
2. Corruption has existed for a long time,
3. The concept of corruption is vague and dependent on culture,
4. Clearing our society of corruption will require major changes in attitudes and values,
5. In various countries, corruption is not at all detrimental,
6. No steps can be taken if government officials commit acts of corruption, or if corruption is systematic,
7. Concerned about corruption is of useless.

Corruption is a phenomenon that should concern by everyone. Corruption can occur in every element of the state and society in all parts of the world regardless of whether it is a democratic or authoritarian state, so that every country in the world recognizes that corruption is an act that causes damage to the state and nation.

Observing the above description, the authors formulate the purpose of this study is how the practice of corruption in government in Indonesia and efforts to suppress the practice of corruption in the Indonesian government.

II. LITERATURE REVIEW

Corruption is a phenomenon that not only occurs within the complexity of private or public socio-political and technical systems, but also, it can give rise to a com-plex system in itself, in which the interrelations of different actors and factors acting as a whole originate characteristic self-organizing and emergent phenomena (Luna & Carlock, 2020). The phenomenon of corruption is a big challenge for every country, because it often involves people in power in institutions or in public financial management. In the disclosure is also often difficult to prove because it is done neatly and the cooperation of several people, as well as the protection of

those in power. Some scientific studies also reveal that corrupt behavior is also supported by cultural influences (Santoso et al, 2014, Lukita, 2018, Saleim and Bontis 2009).

Corruption occurs due to several factors. Examined from several theories, so that the factors causing corruption can be described as follows:

1. The Triangle Fraud Theory by Cressey (1953) which explains the reason a person commits fraud is the presence of pressure, opportunity or chance, and rationalization. These three factors have the same degree of influence.

2. CDMA Theory (C = D + M-A), by Robert Klitgaard who explains that corruption occurs because of power and monopoly factors that are not accompanied by accountability.

3. Theory of GONE by Jack Bologne (1993) which states that the root causes of corruption include Greed, Greed, Opportunity, Needs, Exposure. Greed is the greed of corruptors who are never satisfied with their wealth, Opportunity is related to the opportunities that exist in one situation so that the perpetrators take the opportunity to do corruption, Needs is a mentality that never feels enough, always feels to meet the needs that will never be enough, then Exposure related to the legal system that does not give a deterrent effect from the perpetrators.

4. Theory of Motivation for Actors by Abdullah Hehamahua (2005) which explains that corruption can be divided into five, namely corruption because of need, corruption because there are opportunities, corruption because it wants to enrich oneself, corruption because it wants to bring down the government, and corruption because it wants to control a country.

III. METHODS

This research was conducted with a qualitative descriptive method by examining a group of people, objects, conditions, and phenomena, then making a systematic description and factual analysis of the facts obtained. The source of library data which is the subject of this research is the study of Cressey, Robert Klitgaard, & Jack Bologne, Abdullah Hehamahua regarding theories of the causes of corruption, and the results of research from the Transparency International Indonesia Institute.

IV. RESULT AND DISCUSSION

Analysis of Corruption Practices in Indonesian government

Corruption in government is a behavior of government officials to benefit themselves or groups through abuse of authority. In Indonesia the practice of corruption has become an obstacle to the administration of government so as to slow the country's growth. Corruption is hampering the fulfillment of the needs of Indonesian people. Development that was originally carried out with a sufficient budget has become drained little by little. Corruption practices that occur in these development activities, the results are not in accordance with what should be.

The practice of Corruption has become an octopus to the government in Indonesia. The government apparatus given the mandate and trust to run the wheels of government, instead became the main connoisseurs

of the benefits of corruption. This can be seen during the 2009-2019 period there were 989 cases of corruption in Indonesia as the table below:

Table 1. Cases of Corruption in Indonesia During 2009-2019

Position	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	Total
House of Representatives and Regional House of Representatives members	8	27	5	16	8	9	19	23	20	103	10	248
Head of Ministry Institution	1	2	0	1	4	9	3	2	0	1	2	25
Ambassador	0	1	0	0	0	0	0	0	0	0	0	1
Commissioner	0	0	0	0	0	0	0	0	0	0	0	0
Governor	2	1	0	0	2	3	3	1	1	2	1	16
Mayor / Regent and Deputy	5	4	3	3	3	12	4	9	13	30	14	100
Echelon I/II/III	14	12	15	8	7	2	7	10	43	24	14	156
Judge	0	1	2	2	3	2	3	1	3	5	0	22
Prosecutor	0	0	2	0	0	0	0	3	1	0	3	9
Police	0	0	0	1	1	0	0	0	0	0	0	2
Lawyer	0	1	0	0	0	0	2	1	0	4	1	9
Private	11	8	10	16	24	16	18	28	28	56	49	264
Others	4	8	1	2	8	8	3	21	13	31	32	131
Corporation	0	0	0	0	0	0	0	0	1	4	1	6
Total number	**45**	**65**	**38**	**49**	**60**	**61**	**62**	**99**	**123**	**260**	**127**	**989**

Source: www.kpk.go.id

The table above shows that in 10 years there were 989 cases of corruption in Indonesia based on employment. From the Indonesian government sector, corruption cases are found in House of Representatives and Regional House of Representatives members, totaling 248 cases, then echelon I, II and III government officials as many as 156 cases, then Bupati and mayor or deputy mayor and deputy mayor as many as 100 cases. This can be seen that the state administrators and regional government administrators are still not discouraged to practice corruption. Where they are entrusted with organizing government and development in Indonesia, instead they practice corruption.

Corruption in Indonesia does not just happen without a reason to do so. Some of the factors causing corruption according to researchers, there are internal and external factors. Internal factors that cause a person to commit corruption in Indonesia are:

1. the nature, drive and intention for corruption, in the form of (1) human greed, (2) morale that is less strong in facing temptation, (3) consumptive lifestyle, (4) unwilling / lazy to work hard (Sopanah & Wahyudi, 2007),

2. materialistic behavior (Wilhelmus, 2017).

3. values owned by individuals (Yuwanto, 2015)

4. the existence of non-compliance with salary salaries is relatively limited compared to the level of decent needs (Saefuddin, 1997).

While Rahman (2018) explains the external factors that cause a person to commit corruption in Indonesia, as follows:

1. The legal system in Indonesia to eradicate corruption is still very weak.

2. Politics, Monopoly power is a source of corruption, because there is no control by institutions that represent the interests of society.

3. culture of excessive authority abuse

4. the absence of a good control system causes the community to assume that corruption is something that is common.

5. The social environment can also influence a person to commit corruption. Corruption is the culture of local officials and the tradition of giving is misused by irresponsible people.

The attitudes, behavior, culture and management of low government organizations as described above are the factors that cause corrupt practices in Indonesia. Corruption practices of government apparatuses can be grouped into 2 points of view, namely, first, stating that corruption originates from the individual himself. secondly, some scientists define corruption as a social practice in a system (Semma, 2008: 40). Of the several factors, greed and greed are dominant factors (Supratman et al., 2017), this trait is difficult to stop, because even though the environment of a government institution has been running well, greedy and greedy government apparatuses are joining the institution will damage the system that has been built and can affect other apparatuses to corrupt. The necessities of life that must be fulfilled never run out, making the apparatuses greedy to find ways to commit corruption

Various ways by corruptors make weak achievement of the objectives of government organizations. The more sophisticated ways of handling corruption, the more sophisticated the practice of corruption in the government apparatus. Corruption practices are increasingly innovating, changing the way corruption is done by studying the gaps of the findings of the financial auditors. The more stringent procurement of goods and services through electronic records, openness through the internet and supervision of the financial inspection apparatus, made corruptors look for other gaps from the implementation of procurement of goods and services. So that the increasingly stringent supervision apparatuses do not always succeed in making the government apparatuses become red to do corruption, but they are looking for other ways that are legal administratively.

When the procurement of goods and services is required to be open by conducting auctions through online, apparatuses of corruptors who seek loopholes and opportunity with providers through the implementation of

sub-contracts to other providers that can provide benefits to apparatuses that handle the procurement of goods and services in a government organization. Another way is to provide conditions for the contract winner to purchase materials or other materials, as well as services from family or colleagues from the apparat. This method is also difficult to be seen as enriching oneself or colleagues because administratively the winner of the auction for the procurement of goods and services is a company that meets the requirements of the auction, even though the implementation is carried out by other providers, or goods/materials and services provided by other companies that is a family or colleague of the apparatus.

The strong existence of corrupt practices in government apparatuses is also supported by other apparatuses who are also involved in corruption or who also practice corruption. The sense of togetherness among the perpetrators of corruption causes the organizers who are not involved in corruption as enemies or people who need to be shunned, even if necessary, moved to a part or unit that is far from the group of perpetrators of corruption.

The apparatuses who work honestly will feel left out, and afraid if they report corrupt practices. Because if the apparatuses report misappropriations in the administration of office finance to superiors, in the end he is also transferred to another department or to other organizational units such as the Ashok Khemka case in India (washingtonpost.com:2012), while the perpetrators of the corrupt practice remain safe without any action from superiors. Honesty in the implementation of work seems to be a strange thing among the perpetrators of corruption.

This indicates that law enforcement is low for cases of corruption in government apparatuses so that it does not provide a deterrent effect for perpetrators. Corruption practices in Indonesian government institutions spread at every level. The executive, legislative and judiciary institutions in Indonesia are not clean of corruption cases. The government apparatuses involved in corruption cases are caused by Greed, Opportunity, Needs and Exposure factors, so the government needs to suppress the practice of corruption in Indonesia.

Efforts in Suppressing Corrupt Practices in Government Administration

Various efforts that have been made by the Eradication Commission, the Financial Examination Board, and the police apparatus, as well as the prosecutor's office in Indonesia in eradicating corrupt practices still have not given adequate results. These efforts have not changed much the attitude, behavior and culture and the organizational environment to be honest and clean of corrupt practices. Cases of corruption are still rife. From the case data handled by the Corruption Eradication Commission, it is seen that there is indeed a decrease compared to the previous 10 years, but the data is a case that has been successfully handled, while the daily practice of corruption has not had a deterrent effect on other government administrators. Even recently the KPK stopped 36 cases, investigated corruption cases on the grounds of weak evidence (bbc.com: 2020), and weighed 366 other cases of corruption, whether to continue or stop. Proving corruption cases is indeed rather difficult to do if the actors do not implement commitments in eradicating corruption, commitment and cooperation of a multitude of actors is needed, leading to reduced reliance on informal rules and norms and an anti-corruption ethos that permeates all levels of interactions (Orlova and Boichev, 2017).

Corruption has multiple causes and consequences and that numerous actors, both state and private entities and companies, participate in its development, and therefore, the establishment of effective mechanisms to

eradicate it in order to guarantee human rights is required (www.oas.org). A large strategy is needed that involves a joint commitment of the community, the media and government administrators. Citizens need to be part of the corruption eradication strategy. Community involvement can be through various instruments such as transparency in budget management through information technology, and freedom of the press. Transparency can be well facilitated by optimizing the use of information technology in the government sector and the support of mass media that play a strong role. With freedom of the press, information can be reached quickly by the public.

Besides that, with transparency and press support, public understanding of corruption behavior can be improved so that anti-corruption education does not only run on formal education but also on informal education, such as in the family, home environment, work environment and organizational environment. Various efforts that have been made by the Indonesian government to eradicate corruption such as making regulations to eradicate criminal acts of corruption, and the establishment of anti-corruption institutions, as well as anti-corruption education, have not yet reached their maximum results. The Indonesian government needs to make concerted efforts on every element such as government, society, the business world and the mass media.

The integration of the four elements in forming an anti-corruption culture can improve understanding and anti-corruption behavior. The government functions to issue policies and the implementation of governance which conditions the application of honest, open and responsible behavior. The mass media element disseminates policy information and its implementation and supervision, then elements of the business world support the policy in disseminating information to the government and the public. Community elements participate in the implementation of these policies and programs and help oversee their implementation.

V. CONCLUSION

Corruption behavior is a scourge for various countries. In Indonesia, the practice of corruption has become an obstacle to governance by various types and levels of government administration. Corruption in government is a behavior of government officials to benefit themselves or groups through abuse of authority caused by factors of greed, opportunity, needs and exposure. Corruption practices are carried out in various ways, in which these ways become increasingly complicated to be detected. The Indonesian government needs to embrace all elements such as the mass media, the community and the business world to improve understanding of the dangers of corruption and anti-corruption education. The four elements need to work together in cultivating anti-corruption understanding and anti-corruption behavior.

REFERENCES

[1] bbc.com. 2020, KPK Hentikan 36 Kasus, Pengusutan Perkara Korupsi Dinilai Bisa Jadi Barang Dagangan, https://www.bbc.com/indonesia/indonesia-51582986
[2] Bologne, J. (1993). Handbook on Corporate Fraud: Prevention, Detection, and Investigation: Butterworth-Heinemann.
[3] Bunker, Randall B., Casey, K. Michael., 2012, Facilitating Payments versus Bribes: Are We Sending Conflicting Ethical Signals in Accounting Education?, International Journal of Business and Social Science, 3(8), 47-50, http://ijbssnet.com/journals/Vol_3_No_8_Special_Issue_April_2012/5.pdf
[4] Fatkhuri, 2017, Korupsi dalam Birokrasi dan Strategi Pencegahannya, Jurnal Ilmiah Manajemen Publik dan Kebijakan Sosial, 1 (2), 65-76, https://ejournal.unitomo.ac.id/index.php/negara/article/view/784

[5] Follett, G., 2015, Facilitation Payments: Facilitating Poverty? Alternative Law Journal, 40(2), 123–126. https://doi.org/10.1177/1037969X1504000213

[6] Handayani, I Gusti Ayu Ketut Rachmi, 2013, Korupsi Pengadaan Barang/Jasa Pemerintah: Realitas Antagonis Dalam Perwujudan Prinsip Clean Governance Di Indonesia. Masalah-Masalah Hukum, 42(1), 6-12. https://ejournal.undip.ac.id/index.php/mmh/article/view/5855

[7] Klitgaard, Robert, Ronald Maclean-Abaroa, H. Lindsey Parris, 2000, Corrupt Cities, A Protica! Gudie to Cure and Prevention, Institute Contemporary Studies Oakland, California, World Bank Institue, USA: 16-17

[8] kpk.go.id, Buku Pendidikan Antikorupsi di Perguruan Tinggi, Kementerian Pendidikan dan Kebudayaan RI Direktorat Jenderal Pendidikan Tinggi Bagian Hukum Kepegawaian, https://aclc.kpk.go.id/wp-content/uploads/2018/07/Buku-Pendidikan-Antikorupsi-di-Perguruan-Tinggi.pdf

[9] kpk.go.id, Statistik Tindak Pidana Korupsi Berdasarkan Profesi/Jabatan, https://www.kpk.go.id/id/statistik/penindakan/tpk-berdasarkan-profesi-jabatan

[10] Listiyono Santoso, Dewi Meyriswati, Ilham Nur Alfian, 2014, Korupsi Dan Mentalitas: Kendala Kultural Dalam Pemberantasan Korupsi Di Indonesia, Masyarakat, Jurnal Kebudayaan Dan Politik, 27(4), 173-183, https://e-journal.unair.ac.id/MKP/article/view/2483

[11] Lukita, Fauzi Hadi, 2018, KPK dan Korupsi Dalam Perspektif Hukum Positif, Hukum Islam dan Organisasi Sosial Keagamaan, Tesis, Program Studi Magister Hukum, Fakultas Syari'ah dan Hukum UIN Sunan Kalijaga Yogyakarta, http://digilib.uin-suka.ac.id/31998/1/1620310038_BAB-I_IV-atau-V_DAFTAR-PUSTAKA.pdf

[12] Luna-Pla, I., Nicolás-Carlock, J.R., 2020, Corruption and Complexity: A Scientific Framework for The Analysis of Corruption Networks. Appl Netw Sci 5, 13. https://doi.org/10.1007/s41109-020-00258-2

[13] mediaindonesia.com, 2020, KPK Menimbang 366 Kasus Lawas, Lanjut atau Stop, https://mediaindonesia.com/read/detail/285997-kpk-menimbang-366-kasus-lawas-lanjut-atau-stop

[14] oas.org, Resolution 1/18 Corruption And Human Rights, https://www.oas.org/en/iachr/decisions/pdf/Resolution-1-18-en.pdf

[15] Orlova, Alexandra V., Boichev ,Veselin., 2017, "Corruption Is Us": Tackling Corruption by Examining the Interplay Between Formal Rules and Informal Norms Within the Russian Construction Industry, Journal of Developing Societies 33(4) : 401-427, , https://www.researchgate.net/publication/321889682_Corruption_Is_Us_Tackling_Corruption_by_Examining_the_Interplay_Between_Formal_Rules_and_Informal_Norms_Within_the_Russian_Construction_Industry

[16] Paramastri, Ica., Setiyono, Budi., Martini, Rina., 2013, Analisis Kasus Korupsi Proyek Pembangunan Jalan Lingkar Kota Slawi (Jalingkos) di Kabupaten Tegal, Journal of Politic and Government Studies, 2(2), 1-9, https://ejournal3.undip.ac.id/index.php/jpgs/article/view/2348

[17] Rachman, Fathur., 2018, Upaya Penanggulangan Tindak Pidana Korupsi Di Indonesia, Jurnal Keadilan Progresif, 9(2), 113-124, http://jurnal.ubl.ac.id/index.php/KP/article/download/1065/1120

[18] Rohim, Nur, 2014, Dampak Ekonomi Akibat Kejahatan Korupsi Pasca Regulasi Otonomi DAERAH, SALAM; Jurnal Sosial dan Budaya Syar-I, 1(1), 129-142, http://journal.uinjkt.ac.id/index.php/salam/article/view/1531

[19] Saefuddin, A. Muflih., 1997, "Korupsi Struktural", GATRA, Majalah, No. 28 Tahun III, 31 Mei, pp 107.

[20] Semma, Mansyur, 2008, Negara dan Korupsi : Pemikiran Mochtar Lubis atas Negara, Manusia Indonesia, dan Perilaku Politik, Yayasan Obor Indonesia, Jakarta

[21] Seleim, A. and Bontis, N. (2009), "The Relationship Between Culture and Corruption: A Cross- National Study", Journal of Intellectual Capital, 10(1), 165-184. https://doi.org/10.1108/14691930910922978

[22] Sopanah & Wahyudi, Isa (2004), Analisa Anggaran Publik : Panduan TOT, Jakarta: Malang Corruption Watch (MCW) and Yappika

[23] Supratman, Andi., Ediwarman, Hamdan M., Yunara, Edi, 2017, Analisis Hukum Dalam Pemberantasan Tindak Pidana Korupsi Dalam Perspektif Psikologi Kriminal (Studi Kasus Pengadilan Negeri Medan), USU Law Journal, 5(1), 1-8, https://media.neliti.com/media/publications/164941-ID-analisis-hukum-dalam-pemberantasan-tinda.pdf

[24] Vona, L. W. (2008). Fraud risk assessment. Building A Fraud Audit Program, John Wiley & Sons, Inc. Hoboken, New Jersey.

[25] Wahyuni, Indah Sri,. Tarjo, 2016, Pola Fraud Pada Penyelengaraan Bimbingan Teknis (Bimtek) Di Sektor Pemerintahan, JAFFA, 4(1). 46-52, https://journal.trunojoyo.ac.id/jaffa/article/view/1881

[26] washingtonpost.com, 2012, Indian Bureaucrat Hounded Out of Office 43 Times for Fighting Graft, https://www.washingtonpost.com/world/indian-bureaucrat-hounded-out-of-office-43-times-for-fighting-graft/2012/10/22/b2f61884-1949-11e2-aa6f-3b636fecb829_story.html

[27] Wilhelmus, Ola Rongan., 2017, Korupsi: Teori, Faktor Penyebab, Dampak, Dan Penanganannya, Jurnal Pendidikan Agama Katolik, 17(9), 26-42, https://doi.org/10.34150/jpak.v17i9.44

[28] Windarti. 2015. Pengaruh Fraud Triangle Terhadap Deteksi Kecurangan Laporan Keuangan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efekindonesia (Bei). Jurnal Manajemen dan Bisnis Sriwijaya. 13(02): 230- 244.

[29] Yuwanto, Listyo, 2015, "Profil Koruptor Berdasarkan Tinjauan Basic Human Values", Integritas, 1(1), 1, https://jurnal.kpk.go.id/index.php/integritas/article/view/111/12

[30] Prasad, D., Kabir, Z., Dash, A., Das, B.Abdominal obesity, an independent cardiovascular risk factor in Indian subcontinent: A clinico epidemiological evidence summary(2011) Journal of Cardiovascular Disease Research, 2 (4), pp. 199-205.
DOI: 10.4103/0975-3583.89803

[31] Pankaj Haribhau Chaudhary, Mukund Ganeshrao Tawar. "Pharmacognostic and Phytopharmacological Overview on Bombax ceiba." Systematic Reviews in Pharmacy 10.1 (2019), 20-25. Print. doi:10.5530/srp.2019.1.4

[32] Magesh, N.S., Chandrasekar, N., Kaliraj, S.A GIS based automated extraction tool for the analysis of basin morphometry(2012) Bonfring International Journal of Industrial Engineering and Management Science, 2 (1), pp. 32-35.

[33] Song, D.Non-computability of consciousness (2007) NeuroQuantology, 5 (4), pp. 382-391.

[34] B. Mahalakshmi, G. Suseendran, "Prediction of Zika Virus By Multilayer Perceptron Neural Network (MLPNN) Using Cloud", International Journal of Recent Technology and Engineering, Vol.8,(2S11), September 2019, pp. 249-254

[35] Alamri, Malak Z., N. Z. Jhanjhi and Mamoona Humayun. "Digital Curriculum Importance for New Era Education." Employing Recent Technologies for Improved Digital Governance. IGI Global, 2020. 1-18. Web. 31 Jan. 2020. doi:10.4018/978-1-7998-1851-9.ch001