

Drug Addiction Among Juveniles in the Digital Era of UAE

Khaled Mohammed Abdulrahman Mohammed Alblooshi, Norida Abdullah, Ahmad Rozelan Yunus

Abstract: *The main purpose of this research was to discuss drug addiction among juveniles in the digital era of United Arab Emirates (UAE). The major research question was whether the technology revolution has assisted in preventing drug addiction among juveniles in the UAE. The intention of this research endures via yield a broad perceptible about the factors that influence drug addiction among juveniles. Present methodologies were qualitative research that utilizes an interview perspective. The present research persists execute within Juvenile Care Unit Abu Dhabi, UAE. A female and male interviewee aged 13 between 18 years old, specifically juveniles within the Juvenile Care Unit Abu Dhabi, UAE. The research main outcome focus on developing the conceptual framework of factors that influence drug addiction among juveniles.*

Keywords: *Drug Addiction, Digital Era, Juvenile, Technology Revolution*

I. INTRODUCTION

Technology Revolution (TR) is the periodic waves of technology change that have marked the progress of industrial society [1], [2]. Furthermore, a shift is occurring within the socioecological paradigm that underlines our current sophisticated social structure [3], [4]. The period of transition between two eras within United Arab Emirates (UAE) shows a time comparable toward the social revolution when the technology steam was introduced, and the digital era was emerging within UAE [5]–[13]. A glance back toward the TR for clues of how UAE societies transform with the advancement of technology [14]–[16]. During the TR, social context replaced many cultural within UAE in a new wave of social revolution, where some culture disappear completely, as new ones will be created through TR [17]–[20]. The revolution about social utility and availability intention endure via completely influence the UAE within entire this capacity [21]–[23]. The definite recognition about these capabilities inclination surmises several aspects, plus society recognition about technological diversity, a volume about social revolution and digital era and technology

breakthroughs [24]–[27]. The rapid stride about technological breakthroughs and development forge social context crucial, yet the TR imply fundamentally symbolic for UAE environment [20], [28]–[31].

Today the digital era is all the rage because after decades of development it has become incredibly useful [32], [33]. Yet, if we look closely, we can view the contours of its inevitable descent into the juveniles. We need to start preparing for a new era of social revolution in which different culture and technologies. However, creating a true transformation takes more than a single socio technology [34], [35]. First, society needs to change their habits and then habits need to come into play [36], [37].

UAE has been thoroughly transformed by the digital era [38]. Despite all the revolution about the future paradigm, we need to view, what that really happening to the society, where we are the inability to view through our present reality and how this digital era has fundamentally transformed the society and social revolution. The aim of the UAE government is to be a successful smart city by harnessing digital technology [2], [9], [38], [39]. The UAE government have been quick to embrace the potential of technology to improve the lives of society and to improve efficiency and reduce costs [5], [40]–[43].

Yet, the social revolution within the UAE is a massive cultural shift, which can be justified as a fundamental change within society [32], [44]–[47]. The basic characteristics of the social revolution seek to change small parts of an existing social system, but ultimately keep it in place [48]–[52]. Besides, it creates conflict between different social classes with different access to resources within UAE [53]–[55]. At the base of these great social revolutions are to be found technology in the system of societal technology [41].

Societal technology is the convergence of technological and social insights in the creation, construction and utilizes of artifacts [56]–[58]. It covers an empathetic about the social complex, performance, and immunity via educating the architecture about structure that entails faction about technology and people [56], [59]–[61]. Consequently, the upcoming inception about societal technology desire endures deriving by the ultimate potentially and advanced smart technology yet the socio factor that comprises human nature, culture, morality, ethics, and values are essentially changed [62]–[65].

Then as now, there was widespread fear of the future, a fear derived from the technology revolution that brings behavior change towards the availability of drugs within the neighborhood, community and juveniles utilize them.

Manuscript published on 30 June 2019.

* Correspondence Author (s)

Khaled Mohammed Abdulrahman Mohammed Alblooshi, Institute of Technology Management and Entrepreneurship, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia.

Norida Abdullah, Centre for Languages & Human Development, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia.

Ahmad Rozelan Yunus, Faculty of Technology Management & Technopreneurship, Universiti Teknikal Malaysia Melaka, Melaka, Malaysia.

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](http://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>



UAE is an Islamic-administered society has consistently sustained severe regulation ended outfit related public decency, drug, alcohol consumption and dress code [53], [66]. UAE implements Sharia law and the discipline considering drug practice is especially strict [44], [67]. Moreover, drug retention or usage is banned within the UAE and the illicit discipline for actuality arrested either along with drugs or pinned the control about drugs is a dominant hindrance for UAE [40], [68]. Ultimate drug crime can contain a suspect within a jail for at minimum four (4) years, with extra severe drug-pertinent indictment prompt 10 years or further jailed [69], [70].

Apparently, there is a dilemma as UAE is a dominant global travel and business focus, there is an evident space for drug crime via yield approach toward illegal drugs [71]. According to [72], seventy (70) percentage of addicts are the juveniles aged between 11 to 18 years old. Furthermore, drug addiction among juveniles increased higher because of the cracks within the UAE health responsibility structure or worker had fizzle toward treat or diagnose their dilemma [73], [74].

The factors affecting society, individual and family, are given as reasons for the phenomena of drug addiction among juveniles [75]. Thus, there are two (2) major challenges in implementing TR have assisted in preventing drug addiction among juveniles in UAE, firstly, how to develop a conceptual framework indicating the factors towards drug addiction among juveniles and secondly, what factors indicate drug addiction among juveniles in UAE.

Therefore, the intention of this research is to discuss drug addiction among juveniles within the digital era of UAE and conceptualized a model for the factors that influence drug addiction among juveniles within the UAE.

II. LITERATURE REVIEW

Drug obsession is a complicated issue and has been a serious public health dilemma within UAE [71]. Jailing percentage for drug pertinent case still persist huge with juveniles [69]. According to [75], 60% juveniles' arrests in 2018, approximately 30% were for drug misuse. Furthermore, drug addiction among juveniles was caused by serious dilemmas such as (1) Individual that focus on peer influence that the process influences juveniles to do things that may be resistant to by peers [70] and poor commitment to education and attachment to school leads to poor behavior, attitudes and values among juveniles [72], (2) Society that focus on delinquency by advanced modernized societies by TR [79] and (3) Family focus on the parental drug use that influence juveniles by habits, behavior, communication and values [70] and poor and inconsistent family management that influence juveniles because of the family structure that lacks on communication and relationship among them [61].

Moreover, there is an intimate relationship between behavior and drugs [52]. Understanding this relationship is important for researchers by exploring the theoretical framework for behavior [73]. We have explored and adapted the Learning Theory and Problem Behavior Theory for this research. The Learning Theory is a physiological development that emerged to explain how and why juveniles behave the way they do [54]. Furthermore, it is centered on the environmental influence on the learning process of juveniles [55]. We can justify Learning Theory as a mediating process for juveniles that stimuli and behavior and the responses are studied from the situation over the practice about factual research as shown in Table 1.

Table 1: The Learning Theory Indicators for the Digital Era.

Elements	Classification	Indicators	References
Behaviorism	Behavior can be explained by external factors and behavioral conditioning.	Individual Juveniles passively receive information and adopt behaviors through positive or negative.	[66]–[69]
Cognitivism	Understanding and physical response to experiences.	Family Juveniles mental processes include remembering, observing and adopting it.	[69]–[71]
Constructivism	The idea that the community is responsible for creating their own understanding of the world and using previous experiences.	Society Juveniles create their own interpretation of reality through the process of contextualization.	[71], [72], [73]

Based on Table 1, the Learning Theory indicators explain how juveniles learn and understand the complex processes of drug addiction in the digital era. Juveniles scrutinize the society encompassing them react within diverse approach [74]. Therefore, the Problem Behavior Theory provides an understanding of risk behaviors among juveniles drug addiction [94]. Juveniles who are poor may use drugs as a way of achieving social status [71].

The Problem Behavior Theory indicates the personality characteristics, values and social environmental factors [75]. The emotional and social changes characteristic of early juveniles occurs within the larger context of biological

changes associated with maturation and TR [66].

Moreover, Problem Behavior Theory is considered to be purposive, goal oriented and functional by the juveniles and important enough to counter the like hood of the social digital era [67].

We can justify Problem Behavior Theory as the social psychological relationships within and between each of the three (3) systems of psychosocial influence as shown in Table 2.



Table 2: The Problem Behavior Theory Indicators for the Digital Era.

Elements	Classification	Indicators	References
Personality System	Includes all personal values, beliefs, and expectations.	Individual Juvenciles core with understanding personality psychology.	[68]–[70]
Perceived Environment System	Directly impact problem behavior.	Family Juvenciles complexity focuses on the number of heterogeneous elements within the environment.	[23], [71], [72]
Behavior System	Linkages within the social ecology and psychological function behavior.	Society Juvenciles behavior towards the relationships between society and understanding their relationships.	[63]–[70]

Based on Table 2, the Problem Behavior Theory indicators explain effective behavioral intervention of juveniles functional behavioral in the digital era. Problem Behavior Theory is a problem occurs from social concern [16]. Yet, juveniles behavior is from the environmental structure [17]. We can conclude that the balance of controls that determines from theoretical framework towards drug addiction among juveniles range from the absence of emotions to aggressive emotions that breach from the digital era.

III. METHODOLOGY

This research utilizes the qualitative study approach that mainly exploratory study. The qualitative study utilizes via yield an empathetic about opinions and reasons [18]. Therefore, we have adopted this method for our research on drug addiction among juveniles in the digital era of UAE that furnish intuition within the dilemma toward expanding prevention opinion. The qualitative data collection method used for this research will be an interview approach. This research employs the semi-structured interview that contains the factors about both, unstructured and structured interviews. Furthermore, we formulate an intent about similar questions elects to respond by entire juveniles within Juvenile Care Unit Abu Dhabi, UAE. Concurrent, further questions we inquire amid interviews toward expanding and clarify convinced argument between the male and female interviewee aged 13 to 18 years old. We had a contingent via formulate positive argument over the action of the interview and develop the conceptual framework of factors that influence drug addiction among juveniles based on the outcomes of the interview session.

IV. FRAMEWORK DEVELOPMENT

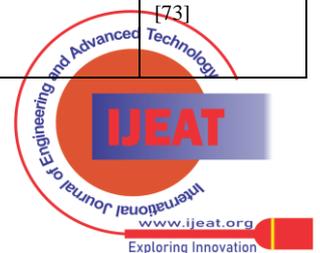
Drug addiction among juveniles has become a public health concern within the UAE [38]. Juveniles in UAE are most likely wanted to explore and try something new to satisfy their curiosity [11]. Drug addiction among juveniles is surely a scenario that needs to prevent and critically lead toward loss of values in the future and suffers from seriously dangerous consequences [44], [46].

Drug addiction among juveniles is increasing day by day and not showing any sign of slowing down [53]. These dilemmas occur due to juveniles often resort to different types of drugs [23]. The rise of technology speedy transformation by the ultimate certain decennary has completely stirred the juvenile’s lifestyle [20]. Juveniles are practicing drugs as initial as junior high and technology is shaping this simple than consistently [30]. Lately research within UAE shows that 75% about juveniles influenced by technology by seeing their friends consuming drugs that embolden them via celebration within a similar approach [44].

This digital pressure amplifies the juveniles to misuse drugs by actuality trade over their acquaintances and friends and technology aid them to obtain drugs [53]. Today, advanced drugs affect aspects of juveniles life as varied as work and study, moral decision making and juveniles social gathering [20]. While drug addiction among juveniles is a serious problem, only some drug use represents serious addiction [66]. For this reason, we have scrutinized the aspects that leverage drug addiction among juveniles, as shown in Table 3.

Table 3: The Factors that influence Drug Addiction Among Juveniles in the Digital Era.

No.	Parameter	Factors Affecting	Type of Drugs	References
1	Family Family environments can also foster destructive emotions and behaviors that encourage drug addiction among juveniles.	Parental Drug use. Creates a chaotic, unpredictable lifestyle and struggle to provide safe care that encourages drug addiction among juveniles.	Opium. A depressant drug that slows down the signal travelling towards the brain and body.	[11], [13], [20], [23], [64], [69]–[71]
		Poor & inconsistent family management. Lack of connectedness and support from family may lead to addictive behavior as a strategy to manage negative emotions that encourage drug addiction among juveniles.	Morphine. The classic opiate painkiller drug that slows down the ability of the body and tends to be sleepy and dope off.	
2	Society Social and economic implications also encourage drug addiction among juveniles.	Delinquency. Inextricably linked with society behavior, violent and fear that encourage drug addiction among juveniles.	Heroin. An opioid drug made from morphine that enters the brain rapidly and increased pleasure for the body.	[44], [51], [62], [73]



3	<p>Individual Interaction and influence by friends and school environment encourage drug addiction among juveniles.</p>	<p>Peer influence. Peer pressure plays a key role in influence through friends, siblings, partners, and classmates that encourage drug addiction among juveniles.</p>	<p>Cocaine. A powerfully addictive stimulant drug made from the leaves of the coca plant that signal the brain nerve cells for pleasure and relief.</p> <p>Marijuana. The dried leaves, stems, flowers, and seeds from the Cannabis Indica plant that overactivated parts of the brain for feeling happier and hallucinations.</p> <p>Solvents. Glues, gases or chemical based vapors that misused as drug for enjoy high by inhaled them.</p>	[13], [66]–[68]
		<p>Poor commitment to education and attachment to school. Education failure and behavior disrupt that encourage drug addiction among juveniles.</p>		

Based on Table 3, the factors that influence drug addiction among juveniles at each stage of their development has been justifying. Juveniles may encounter emotional abuse or neglect by poor role models, blaming themselves and exposure to drug substances and criminal activities through the digital era within the UAE by obtaining them at parties and online sellers.

Therefore, we should carefully plan the prevention design by developing a conceptual model of factors that influence drug addiction among juveniles within the digital era, as shown in Figure 1.

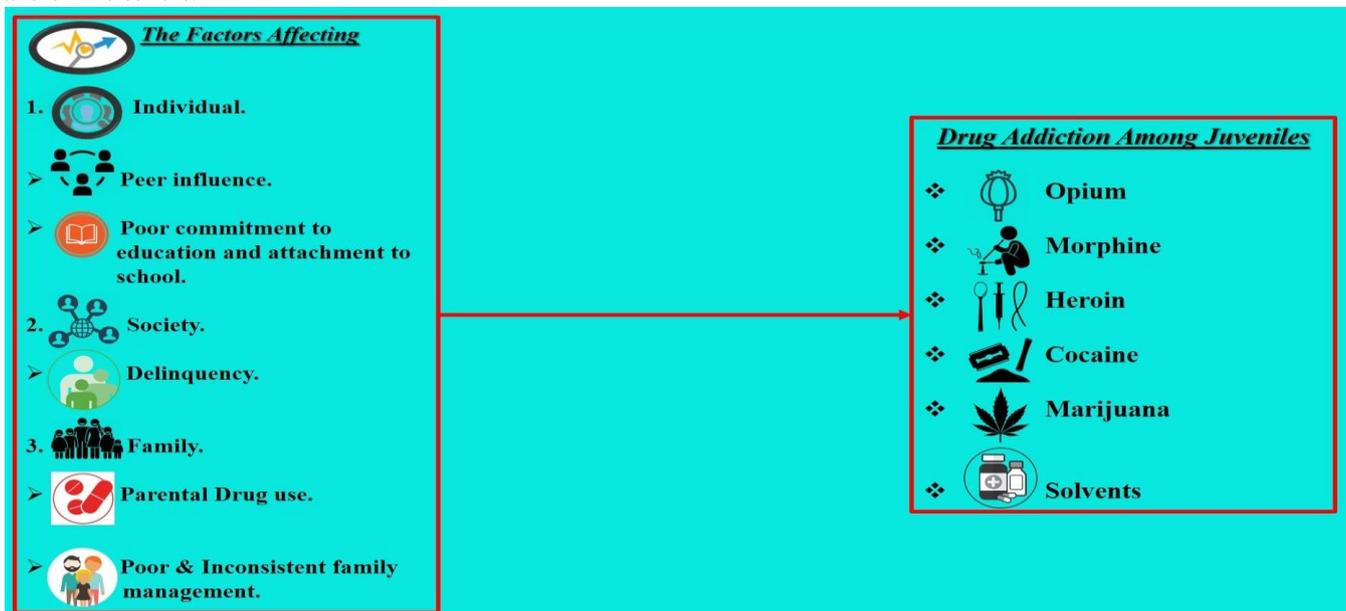


Figure 1: Conceptual Model of Drug Addiction Among Juveniles within Digital Era.

Based on Figure 1, this will be the research framework of factors that influence drug addiction among juveniles. The research outcomes the factors affecting and impact from the individual, society, and family through a holistic approach design on the basis of identifies types of drug addiction among juveniles within the UAE. We need to develop the whole spectrum of drug addiction among juveniles so that the strategy planned need to be reviewed and prevention from time to time. Furthermore, the developed conceptual model of drug addiction among juveniles within the digital era can be used by other agencies to replicate or adapt similar prevention or programs plan for juveniles.

IV. ANALYSIS AND RESULTS

The purpose of the analysis and results section is to present and illustrate these research findings. We gain an intense cognizance about the perceptions and digital behavior about drug addiction among juveniles within the UAE regarding the factors that influence them. The data analysis shows the relationship between the factors affecting and type of drug addiction among juveniles, as shown in Table 4.

Table 4: The Relationship between the factors affecting and type of drug addiction among juveniles in the Digital Era.

The Factors Affecting	Type of drug addiction among juveniles					
	Opium (%)	Morphine (%)	Heroin (%)	Cocaine (%)	Marijuana (%)	Solvents (%)
1. Individual						
➤ Peer influence	12	30	40	60	80	10
➤ Poor commitment to education and attachment to school	5	30	50	40	60	20
2. Society						
➤ Delinquency	8	52	15	70	80	15
3. Family						
➤ Parental Drug use	20	50	60	80	90	30
➤ Poor and inconsistent family management.	15	60	70	80	95	40

Based on Table 4, the relationship between the factors affecting and type of drug addiction among juveniles in the digital era indicates that (1) Individual on peer influence addicted to marijuana 80% and poor commitment to education and attachment to school toward addiction on marijuana 60%, (2) Society on delinquency shows 80% addicted to marijuana and (3) Family through parental drug use shows addiction to marijuana 90% and poor and inconsistent family management lead toward addiction to marijuana 95%. We can conclude that the type of drug addiction among juveniles is marijuana based on data analysis.

V. CONCLUSION

A broad multidisciplinary TR is changing the UAE. The UAE has always been one step ahead when it comes to embracing technology and resulted are a perfect reflection of this trend. As the community prepares to increasingly implement ground-breaking technology, the local government must leverage these social revolutions to create hyper-personalized experiences for their society and continue to build trust among citizens. Furthermore, in the digital era, education might develop drastically but community shall remain at the center of the society, especially to maintain values and ethics. Moreover, as one changes into the technological era, one needs to focus on the society part. Values and ethics are very crucial to society from the improper use of technology. Yet, drug addiction among juveniles within the digital era of UAE has increased rapidly. Drug addiction among juveniles is a serious threat to the health of juveniles and linked with other risk behaviors. Drug related crimes are equally conscience stirring and have made juveniles much over it. The dilemma not only harms juveniles but also negatively affects society and families. Therefore, this research focus on developing the conceptual framework of factors that influence drug addiction among juveniles, which will create alternative strategies of prevention including policy and programs for drug addiction among juveniles in the future.

ACKNOWLEDGMENT

We thank the anonymous reviewers and editors for their useful suggestions.

REFERENCES

1. A. Petrillo, F. De Felice, R. Cioffi, and F. Zomparelli, "Fourth Industrial Revolution: Current Practices, Challenges, and Opportunities," in *Digital Transformation in Smart Manufacturing*, InTech, 2018, pp. 1–20.
2. M. Jayakrishnan, A. K. Mohamad, and A. Abdullah, "Enterprise Architecture Embrace Digital Technology in Malaysian Transportation Industry," *Int. J. Eng. Adv. Technol.*, vol. 8, no. 4, pp. 852–859, 2019.
3. R. Akers, *Social learning and social structure: A general theory of crime and deviance*. Routledge., 2017.
4. M. Jayakrishnan, A. K. Mohamad, and M. M. Yusof, "Assimilation of Business Intelligence (BI) and Big Data Analytics (BDA) To- wards Establishing Organizational Strategic Performance Management Diagnostics Framework : A Case Study," *J. Digit. Inf. Manag.*, vol. 16, no. 1, pp. 22–32, 2018.
5. M. Jayakrishnan, A. K. Mohamad, and A. Abdullah, "Digitalization Approach Through An Enterprise Architecture For Malaysia Transportation Industry," *Int. J. Civ. Eng. Technol.*, vol. 9, no. 13, pp. 834–839, 2018.
6. M. N. A. Rahman, S. N. A. S. Zamri, and K. E. Leong, "A Meta-Analysis Study of Satisfaction and Continuance Intention to Use Educational Technology," *Int. J. Acad. Res. Bus. Soc. Sci.*, vol. 7, no. 4, pp. 1059–1072, 2017.
7. M. Jayakrishnan, A. K. Mohamad, and A. Abdullah, "The Taxonomy of Enterprise Architecture towards High Technology High Value Approach In Malaysian Transportation Industry," *Int. J. Civ. Eng. Technol.*, vol. 9, no. 11, pp. 351–368, 2018.
8. A. Kirkwood and L. Price, "Technology-enhanced learning and teaching in higher education: what is 'enhanced' and how do we know? A critical literature review," *Learn. Media Technol.*, vol. 39, no. 1, pp. 6–36, Jan. 2014.
9. B. D. and M. A. Westerman G, *Leading Digital: Turning Technology into Business Transformation*. Boston: Harvard Business Press, 2014.
10. M. Jayakrishnan, A. K. Mohamad, and A. Abdullah, "Journey of an Enterprise Architecture Development Approach in Malaysian Transportation Industry," *Int. J. Eng. Adv. Technol.*, vol. 8, no. 4, pp. 765–774, 2019.
11. C. T. Exposure, J. Spinazzola, J. D. Ford, M. Zucker, and B. A. Van Der Kolk, "Survey Evaluates: Complex Trauma Exposure, Outcome, and Intervention Among Children and Adolescents," *Psychiatr. Ann.*, vol. 35, no. 5, pp. 1–7, 2017.
12. A. Blomgren, K. Svahn, E. Åström, and M. Rönnlund, "Coping Strategies in Late Adolescence: Relationships to Parental Attachment and Time Perspective," *J. Genet. Psychol. Res.*, vol. 177, no. 3, pp. 85–96, 2016.
13. J. Y. Valente, H. Cogo-moreira, and Z. M. Sanchez, "Gradient of association between parenting styles and patterns of drug use in adolescence: A latent class analysis," *Drug Alcohol Depend.*, vol. 180, no. 1, pp. 272–278, 2017.
14. M. D. Lyman, *Drugs in society: Causes, concepts, and control*. Routledge., 2016.
15. C. Bason, *Leading public sector innovation: Co-creating for a better society*. Policy Press., 2018.



16. M. A. Jayakrishnan, A. K. Bin Mohamad, and M. B. M. Yusof, "The Holistic View Of Business Intelligence (BI) And Big Data Analytics (BDA) Towards Designing Strategic Performance Management Framework: A Case Study," *J. Theor. Appl. Inf. Technol.*, vol. 96, no. 7, pp. 2025–2045, 2018.
17. D. Haroun, O. El Saleh, L. Wood, R. Mechli, and N. Al Marzouqi, "Assessing Knowledge of , and Attitudes to , HIV / AIDS among University Students in the United Arab Emirates," *PLoS One*, vol. 11, no. 2, pp. 1–11, 2016.
18. M. Jayakrishnan, A. K. Mohamad, F. R. Azmi, and A. Abdullah, "Adoption of business intelligence insights towards inaugurate business performance of Malaysian halal food manufacturing," *Manag. Sci. Lett.*, vol. 8, no. 7, pp. 725–736, 2018.
19. V. Patel *et al.*, "Addressing the burden of mental , neurological , and substance use disorders : key messages from Disease Control Priorities , 3rd edition," *Lancet*, vol. 387, no. 10028, pp. 1672–1685, 2016.
20. A. Schimmenti *et al.*, "Addictive Behaviors Traumatic experiences , alexithymia , and Internet addiction symptoms among late adolescents : A moderated mediation analysis," *Addict. Behav.*, vol. 64, no. 1, pp. 314–320, 2017.
21. M. Jayakrishnan, A. K. Mohamad, F. R. Azmi, and A. Abdullah, "Implementation of business intelligence framework for Malaysian halal food manufacturing industry towards initiate strategic financial performance management," *Manag. Sci. Lett.*, vol. 8, no. 10, pp. 1059–1076, 2018.
22. Z. A. Hamid, H. Wee, M.H.Hanafiah, and N. A. A. Asri, "The effect of social media on tourists ' decision to travel to islamic destination : A case of Malaysia," in *Heritage, Culture and Society*, 2016.
23. A. Ramos-Díaz, E., Rodríguez-Fernández, A., Fernández-Zabala, A., Revuelta, L. and Zuazagoitia, "Adolescent students perceived social support, self-concept and school engagement," *Rev. Psicodidáctica*, vol. 21, no. 2, 2016.
24. M. A. Jayakrishnan, A. K. Bin Mohamad, and M. B. M. Yusof, "Integrating the Features of Knowledge Management (KM) and Business Intelligence (BI) for Developing Organizational Performance Framework—A Diagnostics Dashboard," *Adv. Sci. Lett.*, vol. 24, no. 3, pp. 1795–1799, 2018.
25. V. Scuotto, A. Ferraris, and S. Bresciani, "Internet of Things Applications and challenges in smart cities: a case study of IBM smart city projects," *Bus. Process Manag. J.*, vol. 22, no. 2, pp. 357–367, 2016.
26. C. Maier, S. Laumer, A. Eckhardt, and T. Weitzel, "Giving too much social support: social overload on social networking sites," *Eur. J. Inf. Syst.*, vol. 24, no. 5, pp. 447–464, Sep. 2015.
27. A. Bryman, *Social Research Method*, 3rd ed. Oxford University Press, 2008.
28. M. A. Jayakrishnan, A. K. Bin Mohamad, and M. B. M. Yusof, "Understanding Holistic View and Complexities in Big Data Analytics and Business Intelligence (BI) Towards Establishing Strategic Performance Management: A Case Study," *Adv. Sci. Lett.*, vol. 24, no. 3, pp. 1775–1779, 2018.
29. F. T. Rahim and D. Y. Zainuddin, "Study on the Impact of Technological Innovation Capabilities on Competitive Advantage and Firm Performance : an Empirical Study in the Automotive Industry in Malaysia," *J. Sci. Res. Dev.*, vol. 2, no. 13, pp. 194–202, 2015.
30. J. B. Pick and T. Nishida, "Digital divides in the world and its regions: A spatial and multivariate analysis of technological utilization," *Technol. Forecast. Soc. Change*, vol. 91, pp. 1–17, Feb. 2015.
31. M. Degaut, "Intelligence and National Security Spies and Policymakers : Intelligence in the Information Age," *Intell. Natl. Secur.*, vol. 31, no. April, pp. 37–41, 2016.
32. G. Phillips-wren and G. Phillips-wren, "Business Analytics in the Context of Big Data: A Roadmap for Research," vol. 37, 2015.
33. A. Angus, B. Peter, and S. Reid, "Concepts of illicit drug quality among darknet market users: Purity, embodied experience, craft and chemical knowledge," *Int. J. Drug Policy*, vol. 35, pp. 42–49, 2016.
34. Rutendo Mushore, "Leveraging Business Intelligence and Analytics to Improve Decision-making and Organisational Success," University of Cape Town, 2017.
35. Z. Mat Aji, N. I. Yusop, F. Ahmad, A. Ab Aziz, and Z. M. Jawad, "Conceptual Model of Technological Change on Telecentre Effectiveness," *Comput. Inf. Sci.*, vol. 9, no. 2, p. 10, Mar. 2016.
36. B. Whitworth, "A Social Environment Model of Socio-technical Performance," *Int. J. New. Virtual Organ.*, vol. 11, no. 1, pp. 1–29, 2012.
37. D. C. Hine, R. Parker, and D. Ireland, "The knowledge exchange intermediary as service provider: A discussion and an australian case," *Serv. Ind. J.*, vol. 30, no. 5, pp. 713–729, 2010.
38. D. B. Roberts, "Qatar and the UAE: Exploring Divergent Responses to the Arab Spring," *Middle East J.*, vol. 71, no. 4, pp. 544–562, 2017.
39. MITI, "Ministry of International Trade and Industry Report 2015," *Minist. Int. Trade Ind.*, p. 144, 2016.
40. O. H. M. Ibrahim, M. E. A. Rashrash, R. Albasha, and R. Alani, "Evaluation of Appropriateness of Proton Pump Inhibitors (PPIs) Use in the Region of Sharjah , United Arab Emirates (UAE)," *Sci. Res. Publ.*, vol. 9, no. 6, pp. 149–156, 2018.
41. R. Gulati and T. Soni, "Digitization: A Strategic Key to Business," *J. Adv. Bus. Manag.*, vol. 1, no. 2, pp. 60–67, 2015.
42. R. Rohrbeck, F. Steinhoff, and F. Perder, "Sourcing innovation from your customer: How multinational enterprises use Web platforms for virtual customer integration," *Technol. Anal. Strateg. Manag.*, vol. 22, no. 2, pp. 117–131, 2010.
43. G. E. O. F. I. Nsights, O. A. El Sawy, and P. A. Pavlou, "DIGITAL BUSINESS STRATEGY: TOWARD A NEXT GENERATION OF INSIGHTS," *MIS Quarterly*, vol. 37, no. 2, pp. 471–482, 2013.
44. A. S. A. Said and N. Hussain, "Adverse Drug Reaction Reporting Practices Among United Arab Emirates Pharmacists and Prescribers," *Hosp. Pharm.*, vol. 52, no. 5, pp. 361–366, 2017.
45. E. M. Rogers, *Diffusion of innovations*. 1995.
46. G. Burrell and G. Morgan, "Sociological Paradigms and organisational Analysis - Elements of the Sociology of Corporate Life," *Sociol. Paradig. Organ. Anal.*, p. 448, 1979.
47. S. Hussain, "Consumer Innovativeness Leading to Innovation Adoption," vol. 6, no. 27, pp. 229–236, 2014.
48. A. M. Kaplan and M. Haenlein, "Users of the world , unite ! The challenges and opportunities of Social Media," *Bus. Horizons*, vol. 53, no. 1, pp. 59–68, 2010.
49. D. Schlagwein and M. Hu, "How and why organisations use social media: Five use types and their relation to absorptive capacity," *J. Inf. Technol.*, vol. 32, no. 2, pp. 194–209, 2017.
50. C. Dijkmans, P. Kerkhof, and C. J. Beukeboom, "A stage to engage: Social media use and corporate reputation," *Tour. Manag.*, 2015.
51. C. Hay, "Good in a crisis: the ontological institutionalism of social constructivism," *New Polit. Econ.*, vol. 21, no. 6, pp. 520–535, 2016.
52. D. Hall, I. and Hall, *Evaluation and social research*. Macmillan International Higher Education., 2017.
53. A. Russell *et al.*, "Youth in the United Arab Emirates: perceptions of problems and needs for a successful transition to adulthood," *Int. J. Adolesc. Youth*, vol. 12, pp. 189–212, 2012.
54. C. Maier, S. Laumer, A. Eckhardt, and T. Weitzel, "When Social Networking Turns to Social Overload: Explaining the Stress, Emotional Exhaustion, and Quitting Behavior from Social Network Sites' Users," *Ecis*, no. 2012, pp. 1–12, 2012.
55. E. R. Rubin, A. and Babbie, *Empowerment series: Research methods for social work*. Cengage Learning., 2016.
56. R. R. T. Craig, "Communication Theory as a Field," *Commun. Theory*, vol. 9, no. 2, pp. 119–161, 1999.
57. D. Enginoglu and C. L. Arikan, "Creating a Corporate Entrepreneurship Strategy for Competitive Advantage," *Int. Rev. Econ. Manag.*, vol. 4, no. 1, pp. 14–28, 2016.
58. Uma Sekaran, "Research Methods For Business," in *Climate Change 2013 - The Physical Science Basis*, vol. 65, no. 3, Intergovernmental Panel on Climate Change, Ed. Cambridge: Cambridge University Press, 2016, pp. 1–30.
59. J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 2013.
60. D. Arnott and G. Pervan, "Eight key issues for the decision support systems discipline," *Decis. Support Syst.*, vol. 44, no. 3, pp. 657–672, 2008.
61. B. P. Kaur and H. Aggrawal, "Critical Failure Factors in Information System: an Exploratory Review," *J. Glob. Res. Comput. Sci.*, vol. 4, no. 1, pp. 76–82, 2013.
62. S. P. Smith and R. B. Johnston, "How Critical Realism Clarifies Validity Issues in Information Systems Theory-Testing Research," *J. Inf. Syst.*, vol. 26, no. 1, pp. 5–28, 2014.
63. C. Whitbeck and R. Bhaskar, *A Realist Theory of Science.*, vol. 86, no. 1. 1977.
64. A. Klein and S. A. Golub, "Family Rejection as a Predictor of Suicide Attempts and Substance Misuse Among Transgender and Gender Nonconforming Adults," *LGBT Heal.*, vol. 3, no. 3, pp. 193–199, 2016.
65. A. B. Parks, "The Effects of Family Structure on Juvenile Delinquency," East Tennessee State University, 2013.
66. [66] L. Ghany, A. and Ghaleb, *Drugs-A Social Menace.*, vol. 5. Ct. Uncourt, 2018.

67. D. Matza, *Delinquency & Drift*. London: Routledge.: Routledge, 2017.
68. [68] G. Davey, *Conditioning principles, behaviourism and behaviour therapy*. Routledge., 2017.
69. G. Pasquale, F. and Cashwell, "Prediction, persuasion, and the jurisprudence of behaviourism.," *Univ. Tor. Law J.*, vol. 68, no. 1, pp. 63–81, 2018.
70. Z. Ekkekakis, P. and Zenko, *Escape from cognitivism: Exercise as hedonic experience*. Academic Press, 2016.
71. L. Smith, *Necessary knowledge: Piagetian perspectives on constructivism*. Routledge., 2017.
72. N. J. C. Greenwood, "A System and Method for Modelling System Behaviour.," *Pat. Appl.*, vol. 15, no. 323, p. 199, 2017.
73. L. B. Whitbeck, *Nowhere to grow: Homeless and runaway adolescents and their families*. Routledge., 2017.
74. R. M. Afifi, A. E. Saad, M. M. Sadek, and S. Zaytoun, "Prevalence and Correlates of Abusive Behaviours in Upper Egyptian Adolescents: Violence, Sexual Abuse Victimization, and Substance Abuse among Blood Group Types Subsets," *Int. Neuropsychiatr. Dis. J.*, vol. 12, no. 2, pp. 1–17, Dec. 2018.
75. Y. M. Bah, "Drug Abuse among Street Children," *J. Clin. Res. HIV AIDS Prev.*, vol. 3, no. 3, pp. 12–45, Nov. 2018.