1.1 Research Question

Considering the catalytic role information systems (IS) are playing in the automobile sector, does existing theoretical frameworks in the IS literature sufficiently assessing these technologies and how interactions with these technologies result to better performance and increased productivity?

2. JUSTİFİCATİON FOR THE USE OF LİTERATURE REVİEW

Realizing the potentials and benefits associated with the integration of ICTs into different human endeavours, the automobile industry was not left out. Today technologies are driving both core and services subsystems in the industry. At the World Economic Forum, [61] while considering the level of technological change was quoted to have said "We are at the beginning of a revolution that is fundamentally changing the way we live, work, and relate to one another". Developed economies of the world are already keying into this shift with resultant effects on their developmental strides [18]. The automobile sector in developing economies is not left out [1] as their participation is either in the core or services sections of the business model.

Unfortunately, existing literature have failed to reflect the key human interactions with existing technologies in the industry and how these interactions results to increased utilization, satisfaction and performance even in form of improved services. An understanding of these interactions would not only provide information to researchers such as to serve as foundation for theory building, it would to a large extent provide the necessary feedback towards improved designs, operations, implementations and services. A thorough understanding and conceptualization of these factors would in no small measure improve deliberate collaborative steps for the automobile industry, ICT experts, researchers, governments among others.

2.1. Objectives of the Review

This work provided the first step towards the provision of a comprehensive body of past literature that considers the fit of technologies and how their interactions results to improved utilization, satisfaction and performance outcome in developed and developing countries. The tabulated work is organized along the purpose of the study, unit of analysis (what was studied), identification of the theory/model used and findings of the study.

3. METHODOLOGY

Systematic literature review was adopted in this study. The literature used in this search cut across different databases. Databases searched include Google scholar (2009 - 2019) and EBSCO compendium (2009 -2019). The literatures were located under the following categories: Information technology (T), Automobile (A), Education (E) and Behaviour/Organization (B). Studies were selected over a nine year period with a view to providing current literature on the issues under study.

3.1 Study selection

Independent Searches were carried out using phrases such as "task technology fit", "technology use in automobile industry", or "ICT performance evaluations". The work adopted the following formula in the search for literature across the databases: (T1 or … Ti), (A1 or …Ej), (E1 or …Ek), (B1 or …Bl) where T, A, E and B stand for the categories of Information technology, Automobile, Education and Behaviour/Organization respectively.

The following criteria were used to select the studies:

- Study of educational outcomes
- Study of automobile outcome
- Study of e-commerce outcome
- Study of TTF and outcomes
- Study of technology usage outcomes
- Sample description.
- Comparison being studied or objective of the study.
- Reporting of results.
- English-only studies (including countries outside Nigeria).

Papers online were considered based on their relevance using titles and abstracts. Papers that Studies that mentioned software usage to support given tasks were chosen and given a more thorough look to determine the users and their views for possible inclusion. For inclusion purpose, software must have been deployed. Literatures that focused on software development, integration compatibility and security based issues were not included. Papers that focused on comparison of automobile models, speed, features and cost were also not included. The cross database search initially produced 253 papers. The number later reduced to 128 after considering the focus of the literatures. After duplicates were identified and removed, 113 were left. A critical focus on the detailed from abstract, scope and findings of the study further narrowed down to 63 which was considered as the final criteria for eligibility.

Details of the extracted table indicating the author(s)/year of publication, unit of analysis, objective of the study, theory used as well as the findings of the research are included in table 1.

Table 1: Details of reviewed literature

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
1	Mahmoudsalehi, Feizi, Taqhavifard, and Raeesi (2019)	Iranian automobile producing company	To develop a model for measuring IT business value in automobile production	Information technology business value conceptual model	Information technology has had significant effect in the automobile production value chain. Industrial revolution and use of industrial robots has improved products tracking and its delivery
2	Haider, Zhuang, Hashmi and Ali (2019)	Digital shoppers using online and mobile channels in China	Examined the effect of chronotypes on the omnichannel process	Task Technology Fit	The result confirmed that while mobile channels shows greater task-technology fit to evening-type respondents, desktop channels showed better task-technology fit to morning-type respondents
3	Khaled I. et al (2019)	Past Research Theories	Factors affecting Employees Adoption of E-Government	UTAUT and TTF	Use of Information System is affected by Performance
4	Osang and Mbarika, (2019)	Lecturers	Factors determining information system utilization and performance at individual level of analysis	Technology utilization, satisfaction and performance model (TUSPEM)	Result showed a statistically significant relationship between task technology fit, system utilization, user satisfaction and performance. Conversely, relationships between TTF to Satisfaction, Computer self-efficacy, social norms, user habit, perceived usefulness and ease of use to Usage were not supported.
5	Pan, et al (2019)	Chinese Company/Organization	An Empirical Study on the acceptance of 4D BIM in EPC Projects in China (2019)	TAM,TPC,	Information System is positively impacted by performance and utilization
6	Bessen, J. (2019)	US textile, steel, and auto industries	Showed why productivity-improving technology brought employment growth at some times but not at others	Model of Demand and Technical Change	Automation initially spurred job growth because demand was highly elastic. But demand later became satiated, leading to job losses. Automation might not cause mass unemployment, but it may well require workers to make disruptive transitions to new industries, requiring new skills and occupations.
7	Linus et al (2019)	Kenya Hospitals	PU and PEOU as Mediators of the effect of Health Information System on User Performance	TTF,TTM	TTF affects Performance through Utilization.

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
8	Morris, Madzudzo and Garcia-Perez (2018)		Examined cybersecurity challenges contingent on the development of connected cars.	-	The auto industry is ill-prepared to meet the new challenges. engine systems to provide energy to vehicles, development of autonomous vehicles and the enhancement of services available to increasingly connected cars.
9	Matt et al (2018)	Amazon M'Turk	Refining and Extending TTF Theory Creation of two TTF Fit Scales.	TTF,TTM	TTF affects Performance through Utilization.
10	Farid et al (2018)	Mesh Users/Non-Users	Providing a framework for Intelligent Mesh Technology	TTF,TTM	TTF is quite different from TTM
11	Sayyed et al (2018)	Mobile Banking Users/Non-Users	Assimilation of TTF and UTAUT for Mobile Banking Usage	UTAUT	Performance, Efficiency affects Age, Gender and Voluntariness
12	Xiu et al (2017)	Chinese Users	Chinese Users Switching Behaviour of Cloud Storage Services	TTF,UTUAT	TTF has a relationship with Voluntariness
13	Andrew et al (2017)	Undergraduates	Individual Appropriation of LMS Antecedents and Consequences	-	Utilization has both positive and negative effect on User Satisfaction. User Satisfaction affects Voluntariness.
14	Abbas et al (2018)	Online Customers	Testing the Impact of Mobile Banking On Individual Performance.	-	Examined the relationship between employee engagement,
15	Iversen and Eierman, (2018)	Students	Examined collaborative writing and editing tools and the factors that impact TTF and Technology Acceptance	Task Technology Fit	Task-Technology Fit (TTF) will positively effect on the performance of individuals. Individual performance has a positive outcome on TTF, user satisfaction
16	Liere-Netheler, Vogelsang, Hoppe and Steinhüser (2017)	A mechanical engineering company employees	To apply, test and expand the JCM model for ERP based workplaces	Combined TAM + TTF	Google Docs and Office 365 performed significantly better than MS Word/email on the outcome measures despite users having significantly more experience with the office 365. They perceive that the old technology no longer fits the task as well and thus it performs lower on outcome measures.
17	Ouyang et al (2017)	Students	MOOCs continued usage	Extended job characteristics model (JCM) model	The study argued that the model has to be extended towards a user-centered view. Technology characteristics explained job satisfaction

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
18	Islam et al (2017)	Students	MOOCs continued usage	ECM + TTF	Students' extent of confirmation influenced perceived usefulness. Extent of confirmation, perceived usefulness influenced satisfaction. Perceived usefulness influenced satisfaction. Perceived usefulness, satisfaction influenced continuance intention. Extent of confirmation influenced perceived task-technology fit. TTF failed to influence satisfaction. TTF influences continuance intention.
19	Wu and Chen (2017)	Users	Continuance Intention to Use Massive Open Online Course (MOOCS)	ECM + TTF	Perceived usefulness t2, perceived usability, satisfaction with the service positively affects the continuance intention. Perceived usability (t2), usefulness confirmation, usability confirmation positively affects satisfaction with the service.
20	Parameswaraand Kishore (2017)	Meta- analytic sample of 80 studies	A social presence model of task performance was built and the relationships in central and peripheral routes tested.	A research model based on literature	In the central route, social presence positively impacts task performance through its positive effect on flow. In the peripheral route, social presence positively impacts trust, which in turn negatively impacts task effort.
21	Khaled (2016)	Employees	TTF of MIS and its Impact on MIS User Acceptance and Satisfaction at UNRWA Relief and Social Services Area Offices - Gaza	Social presence model of task performance	It is concluded from the findings that Task-Technology fit has a strong positive impact on Utilization and User Satisfaction
22	Yang, Alain Pinsonneault, and Po-An Hsieh (2017)	Undergraduate students	The study investigated the effect of engagement experience on users' intention to explore BIS functions	TTF	The cognitive fit and the regulatory compatibility significantly affected perceived enjoyment and engagement experience, which in turn affected users' intention to explore business intelligence system
23	Iyengar. Sweeney and Montealegre (2015)	Independently owned real estate franchisees	The role of IT use on organizational learning	Learning Mechanisms and Outcomes Framework	IT use is an important learning mechanism for franchisees by impacting knowledge transfer effectiveness and absorptive capacity. Absorptive capacity mediates the relationship between IT use and financial performance.
24	Hanelt et al (2015)	Secondary data - magazines	Examine the digital transformation of the automotive industry	-	Findings indicate that trends related to social media, mobile, big data and cloud computing are driving automobile manufactures to extend, revise, terminate, and create business models to include digital layer.

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
25	Cottrell W. (2017)	Head principals	Examined the role that fit may play in recruiting, hiring, and placing head principals	Person-Environment Fit Theory	Fit is a relevant concept and influential part of the process for identifying, hiring, and placing head principals. Perceptions about fit have a different level of influence on their decision-making.
26	Krasniqi and Hajrizi (2016).	Cars	Identify issues and challenges of Autonomous Vehicles	-	DSRC and 5G were identified. 5G is seen as the main technology given that adoption of 5G coincides well with the adoption of Autonomous Cars both scheduled for 2020.
27	Tam Oliveira (2016)	Users	Understanding the impact of m-banking on individual performance:	-	Use and satisfaction are important precedents of m-banking individual performance.
28	Osang (2015)	Lecturers	Task Technology Fit and Lecturers Performance Impacts	Technology utilization, satisfaction and performance model	TTF and usage will positively influence e-assessment performance
29	Dweiri, Kumar, Khan and Jain (2016)	Suppliers	Proposed a decision support model for supplier selection for automotive industry in Pakistan	Analytic hierarchy process (AHP)	Sensitivity analysis suggests the effects of changes in the main criteria on the suppliers ranking. The use of AHP in the supplier selection gives the decision maker the confidence of the consistency and the robustness throughout the process.
30	Nordhoff, van Arem, and Happee, (2016)	Users inside and outside of driverless vehicles	To study user acceptance of driverless vehicles that fall 4 into SAE level 4	UTAUT) and the Pleasure-Arousal-16 Dominance-Framework (PAD)	The result showed that the determinants, the conceptual model of user acceptance of driverless vehicles are largely unknown.
31	Chen Lai (2015)	Teachers	Why do teachers continue to use Teaching Blogs	TTF	Utilization has a positive impact on User Satisfaction, User Satisfaction has a positive impact on Information System continued usage and TTF has a positive impact on User Satisfaction.
32	Montgomery (2017)	Working professionals or employed college students	Does job characteristics and resources influence job fit perceptions of current employees	Partial Least Square Model	Voluntariness has a direct effect on Information System

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
33	Khan Ahmad (2015)	Users (Professionals, Students etc)	Mobile-Web Applications Adoptability in Pakistan: Consumer Perspective based on UTAUT model	UTAUT model	Performance Expectancy (PE) of mobile web applications positively influenced Behavioral Intention (BI) of users towards their use. Voluntariness to use is only UTAUT moderator which affects majority of UTAUT relationships and accordingly a modified UTAUT model is presented.
34	Ahmad (2015)	Users (Professionals, Students etc)	Mobile-Web Applications Adoptability in Pakistan: Consumer Perspective based on UTAUT model	TAM	Utilization of Information System is positively related to attitude towards ECT and intention of Use.
35	Park and Raven (2015)	Undergraduate Users	Information quality as a determinant of task technology fit in using communication technology for simple task	UTAUT model	Performance Expectancy (PE) of mobile web applications will positively influence Behavioral Intention (BI) of users towards their use. Voluntariness to use is only UTAUT moderator which affects majority of UTAUT relationships and accordingly a modified UTAUT model is presented.
36	Hollingsworth (2015)	Students	Examined task-technology fit in the context of mobile devices	Demands-abilities and needs-supplies fit model	Both autonomy and feedback increase satisfaction, but not effectiveness, by improving job fit. Job satisfaction and task performance were not found to be related in this study
37	Ernie et al (2012)	Students	Information System Acceptance and User Satisfaction	Combined DeLone and McLean Information Systems Success Model + TTF	Enjoyment did not positively influence technological characteristics yet, for tablets, it did. Technology trust positively influenced technology characteristics in both smartphones and tablets. Task characteristics impacted on task-technology fit with smartphones but did not with tablets
38	Edunyah (2015)	Road side garage mechanics in Ghana	Identify problems faced by mechanics in Ghana due to technology adoption	-	Lack of skills on the use of The On-Board Diagnostic (OBD) was identified as major problem facing roadside mechanics in Ghana
39	Isaac Abdullah and Ramayah (2017)	Employees	TTF and Performance Impact among Public Sector employees in Yemen	-	Information System positively influences User Satisfaction

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
40	Michele (2014)	Students	The Role of Voluntariness in Distant Education Students' Usage of Course Website	Task Technology Fit	TTF has a strong impact on User Satisfaction and Performance.
41	Lin (2011)	Users	Perceived fit and satisfaction on web learning performance: IS continuance intention and task-technology fit perspectives	TAM	The findings of this study show clearly that the drivers of a course website use are the ease of use and the usefulness and this positive relationship is stronger with higher perceived voluntariness.
42	Kositanurit Osei (2011)	Workers	Re-examining Information System User Performance	TAM and TTF	The results revealed that perceived fit and satisfaction are important precedents of the intention to continue VLS usage and increased individual performance.
43	Larson et al (2009)	Students	Research of Computers in Human Behaviour	Decision Tree	User Performance is positively influenced by Information System
44	Wu Lederer (2009)	Past Theories	A Meta-analysis of the Role of Environment-based Voluntariness in Information System	Partial Least Square Model	Utilization is positively associated with User Satisfaction. TTF is positively associated with Utilization.
45	Hyo-Jeong et al (2009)	Online Auditors	Information Technology Acceptance in the Internal Audit Profession	Meta-Analysis	Voluntariness fails to moderate Utilization acceptance of IS
46	He, Wang and Liu (2012)	Users	Perceptions of fit positively affecting usefulness and security	TAM	Utilization has an Impact on Technology Acceptance
47	Suhendra, Hermana and Sugiharto (2009)	Residents	Behavioral Analysis of Information Technology Acceptance in Indonesia Small Enterprises	An integrated theory model	Perceived value led to intention to adopt m-commerce where. Value is a mediator.
48	Sharif, and Hussain (2011)	Academics	Social Influence, Voluntariness, Experience and Internet Acceptance	UTAUT	It found that internet adoption was significantly affected by utilization and firms' business performance

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
49	Oliveira et al, (2014)	Online Students	Extending the understanding of mobile banking adoption	Partial Least Square Model	Voluntariness plays an Important role in Information System
43	Liang, Ling, Yeh and Lin (2013)	Users	TTF and use of mobile services	Task Technology Fit	TTF positively influences Performance
50	Shih and Chen (2013)	Users	Determining behavioral intention for mobile commerce	Task Technology Fit	A greater level of TTF indicated a higher likelihood of intention to use mobile or application services
51	Huang and Yea-Ru (2016)	Job Seekers	A task–technology fit view of job search website impact on performance effects: An empirical analysis from Taiwan	Integrated model of TAM and TTF	Findings showed the integrated model has higher explanatory power than each model individually.
52	Lin Fofanah and Liang (2011)	Citizens of Gambia	Assessing Citizen adoption of E-Government Initiatives in Gambia	Task Technology Fit	Task–technology fit had a strong influence on jobseeker unemployment duration.
53	Sun, Anol and Ma (2009)	End Users	Extending Technical Usage of Work Settings	TAM	Utilization and User Satisfaction of Information System has a positive effect on User behaviour Intentions
54	Hsiao and Chen (2012)	Nurses	Investigated the use of mobile information systems by nurses in a healthcare setting	Partial Least Square Model	Utilization is positively related to work Performance.
55	McGill et al (2011)	Lecturers	LMS in teaching	Task technology Fit	The IS offers nursing staff timely and accurate information yielding increased effectiveness and efficiency of nurses in patient care.
56	Lin (2012)	Virtual learning systems	Students	Technology-to-performance model	TTF has a direct influence on instructors' perceptions of the impacts of the LMS on their performance. Level of utilization is either not associated with performance impact or is associated with performance impact in ways that are not readily captured by simple linear modeling

S/No	Author/Year of Publication	Unit of Analysis	Objectives of Study	Theory Used	Findings
57	Al- Qeisi (2014)	Users	Website Design Quality and Usage Behaviour	ECM + TTF	Perceived fit and satisfaction influences intention to continue VLS and individual performance. Perceived fit and satisfaction may directly link with perceived impacts on learning in terms of effectiveness, productiveness and helpfulness of VLS usage
58	Chooprayoon, Che and Fung (2010)	Past Theories	Adoption and Use of E-Commerce/ E-Business Technology among SMEs in Thailand	UTAUT	Utilization has a positive impact on Information System.
59	WollschLaeger, Sauter, and Jasperneite (2017)	Past reviews	To review technological trends and their impact on industrial communication	-	The adoption of Internet of Thing technologies and concepts in automation will grow substantially. Challenges of future industrial communication are the management of complexity and heterogeneity.
60	Jong, and Yong (2015)	Drivers	Examined the user's adoption aspects of autonomous vehicle, and investigate what factors drive people to trust an autonomous vehicle	TAM + Trust model	Perceived usefulness and trust are major important determinants of intention to use autonomous vehicles. Trust has a negative effect on perceived risk
61	Berg and Vance (2017)	Virtual reality sites	Described the current state-of-the-art of virtual reality as it is used as a decision-making tool in product design.	-	Results suggest that virtual reality has arrived: it works! It is mature, stable, and, most importantly, usable. VR is actively being used in a number of industries to support decision making and enable innovation.
62	Dweiria, Kumar, Khan, and Jain (2016)	Suppliers	Proposed a decision support model for supplier selection based on analytic hierarchy process (AHP) using automotive industry in Pakistan	Experts' opinions using AHP.	The use of AHP in the supplier selection gives the decision maker the confidence of the consistency and the robustness throughout the process
63	Chithambaranathan, Subramanian and Gunasekaran (2016)	Electric vehicles	Analyzed the electricity energy generation systems of many European countries.	Grey based method with ELECTRE and VIKOR approaches	Some countries (e.g. France or Norway) are better-suited for electric vehicles adoption, while countries like Spain or Portugal should boost electric vehicle promotion policies.

Source: author

4. RESULTS

A year by year analysis of the literature reviewed is shown in table 2.

Table 2: Year by year summary

Year	Frequency	Percentage
2019	7	11.1
2018	6	9.5
2017	13	20.7
2016	7	11.1
2015	10	15.9
2014	3	4.8
2013	2	3.2
2012	4	6.3
2011	5	7.9
2010	1	1.6
2009	5	7.9
	63	**100**

From the papers reviewed, while year 2017 recorded the highest percentage of papers captured using the set criteria, year 2010 had the lowest. As at the time of writing this findings, 2019 being the most current year had 11.1% of the papers included for analysis. Only 11 papers representing 17.4% of the papers focused on the automobile industry. These include [1, 2, 7, 15, 16, 20, 21, 22, 54, 57, 66]. 53 of the 63 papers reviewed representing 84% used one form of theory or the other. None of the papers assessed used either the TTF or TUSPEM model to assessment neither was there any mention of the fit and usability of the adopted technologies/information systems to determine the performance of the deployed information technology.

5. DISCUSSION

Information technology has penetrated the automobile industry. From mechanically driven to the contemporary electromechanical equipment, different hardware and software components have become part of both the automotive design architectures and related services. Despite the integration of technological innovations in the automobile industry with its attendant improvements in security, driving experience and daily lives, layers upon layers of architectural designs are being added to existing designs making it more complex and complicated in terms of operation and maintenance. As a catalyst, the essence of technology is to assist organizations and individuals achieve their aims and objectives efficiently and effectively. However, for these to happen, these technologies must be properly and maximally used in order to drive organizational processes and growth. Understanding of these interactions and how these interactions culminate to improved services, satisfaction and result remain critical. In other words, if wonderful systems are built but are not fully appreciated, understood and utilized, it results to underutilization, waste of technology and investment. Research is therefore needed to explain human interactions with emerging technologies with the view to unravelling these complicated underpinnings that drive technological innovations at one end and vice versa on other ends. Technology designers must not only be interested in building sophisticated systems, emphasis should be placed on systems that satisfy the users. There is need for the automobile industry to realize the critical role information technology has assumed.

As reported by Loukas (2015), “growing software system complexity and highly integrated IT sub-systems have paved the way for the emergence of new suppliers. The new entrants provide services, particularly in design and engineering, rather than physical products”. This study is the first step towards providing a comprehensive review of related literature that focused on information technology fit, usage and performance with the view to further narrow down on the automobile industry. This would in no small measure provide the foundation for future works that interrogates technological developments and innovations and how these innovations can be effectively utilized for optimal productivity. Consequently, it is important that we continue to develop and learn from the human related theories associated with behavioural information systems. This would in no small measure ensure proper synergy between industry, researchers and the users.

6. CONCLUSİON

A critical look at the reviewed literature shows that not much has been reported regarding human interactions with information technologies in automobile sector especially in developing economies of the world. While vehicle manufacturers and application developers are busy turning out enhanced products, there are clear absence of research identifying separate applications, its utilization and how these affects individual and organizational performances. Understanding of these interactions from one context and locality to another would largely serve as feedback system to developers of different components of vehicles and other related services provided around the automobile sector. Future Research should investigate the causal relationship existing between variables using suitable theoretical foundations. This would assist in providing clearer understanding on the fit, satisfaction, performance or effectiveness of adopted technologies.

REFERENCES

[1] M. Mahmoudsalehi, K. Feizi, M.T. Taqhavifard and V.I. Raeesi. "Is information technology valuable for automotive production industries? An empirical insight from Iranian automotive industries", Int. J. Value Chain Management, vol.10, no. 2, pp. 107–122, 2019.

[2] D. Morris, G. Madzudzo and A. Garcia-Perez, "Cybersecurity and the auto industry: The growing challenges presented by connected cars" International Journal of Automotive Technology and Management, vol. 18, no. 2, pp. 105-118. https://dx.doi.org/10.1504/IJATM.2018.092187, 2018.

[3] J. H. Iversen and M.A. Eierman, "The Impact of Experience and Technology Change on Task-Technology Fit of a Collaborative Technology" Journal of Education and Learning, vol.7 no. 3, pp. 56-75, 2018.

[4] F. Dweiria, S. Kumar, S. Khan, and V. Jain, "Designing an integrated AHP based decision support system for supplier selection in automotive industry" Expert Systems With Applications vol. 62, pp. 273–283, 2016.

[5] L. Canals, E. Martinez-Laserna, B. Amante and N. Nieto, "Sustainability analysis of the electric vehicle use in Europe for CO2 emissions reduction" Journal of Cleaner Production, vol. 127, pp. 425-437. DOI: 10.1016/j.jclepro.2016.03.120, 2016.

[6] M. Wollsch, T. Sauter and J. Jasperneite, "The Future of Industrial Communication Automation Networks in the Era of the Internet of Things and Industry 4.0" IEEE industrial electronics magazine, 2017, pp. 17-27. 2017.

[7] A. Hanelt, E, Piccinini, R.W. Gregory, B. Hildebrandt and L.M. Kolbe "Digital Transformation of Primarily Physical Industries - Exploring the Impact of Digital Trends on Business Models of Automobile Manufacturers" Wirtschaftsinformatik Proceedings vol. 2015, pp. 88. http://aisel.aisnet.org/wi2015/88, 2015.

[8] T. McGill, J. Klobas and S. Renzi, "Learning Management System use and Instructor Performance: The Role of Task-technology Fit" International Journal on E-Learning, vol. 10 no. 1, pp. 43-62. http://researchrepository. murdoch.edu.au/12296/, 2011.

[9] J. Yang, A. Alain-Pinsonneault and Po-An Hsieh, J.J. "Understanding Intention to Explore Business Intelligence Systems: The Role of Fit and Engagement" Proceedings of the 50th Hawaii International Conference on System Sciences, pp. 5368- 5377, 2017.

[10] A. R. Montgomery, "Impact of Job Characteristics and Resources on Person-Job Fit" Electronic Theses, Projects, and Dissertations. 503. http://scholarworks.lib.csusb.edu/etd/503, 2017.

[11] B. Kitchenham, "Procedures for performing systematic reviews" Technical report. TR/SE0401, Leele University, 2004.

[12] K.W. Cottrell, "The Role of Fit in the Decision Making Process for Head Principal Recruitment, Hiring, and Placement" PhD diss., University of Tennessee, http://trace.tennessee.edu/utk _graddiss/4452, 2017.

[13] C.L. Hollingsworth, "An Examination of Fit and the Use of Mobile Devices for Performing Tasks", Doctor of Business Administration Dissertations, Paper 5, 2015.

[14] J. Bertram, "The Relationship of Employee Engagement and Employee Job Satisfaction to Organizational Commitment" Walden Dissertations and Doctoral Studies. http://scholarworks. waldenu.edu/dissertations, 2018.

[15] I. Edunyah, "Technology and Modern Automobile Industry- Challenges and Opportunities for Roadside Mechanics in Ghana" (Tarkwa Nsueam Municipality). International Journal of Scientific Research and Innovative Technology vol. 2, no. 6, pp. 58-63, 2015.

[16] C. Jong Kyu and J. Yong Gu, "Investigating the Importance of Trust on Adopting an Autonomous Vehicle" International Journal of Human-Computer Interaction vol. 31, no. 10, pp. 692-702, DOI:10.1080/10447318. 2015.1070549, 2015.

[17] C. Okoli, "A Guide to Conducting a Theory-Driven Systematic Review" John Molson School of Business, Concordia University, 2011.

[18] V. WaLkerall, G. Bowkett and I. Duchaine, "All companies are technology companies: preparing Canadians with the Skills for a digital future" Canadian Public Policy, Analyse de politiques, doi:10.3138/cpp.2018-011, 2018.

[19] K. Liere-Netheler; K. Vogelsang, H. Uwe and M. Steinhüser, "Towards the User: Extending the Job Characteristics Model to Measure Job Satisfaction for ERP Based Workplaces – A Qualitative Approach" CONF-IRM 2017 Proceedings, 37, http://aisel.aisnet.org /confirm2017/37, 2018.

[20] F. K. Dweiri, S.A. Khan and V. Jain, "Designing an integrated AHP based decision support system for supplier selection in automotive industry" Expert Systems with Applications vol. 62, 2016, pp. 273–283, 2016.
[21] X. Krasniqi, and E. Hajrizi, "Use of IoT Technology to Drive the Automotive Industry from Connected to Full Autonomous Vehicles" ScienceDirect- IFAC-Papers-OnLine vol. 49-29, pp. 269–274, 2016.
[22] S. Nordhoff, B. van Arem and R. Happee, "A conceptual model to explain, predict, and improve user acceptance of driverless 4P vehicles" In 2016 TRB 95th Annual Meeting Compendium of Papers [16-5526] Washington, DC, USA: Transporation Research Board (TRB), 2016.
[23] S.K. Abbas et al, "Testing the Impact of Mobile Banking on Individual Performance" Digital Transformation for a Sustainable Society in the 21st Century, pp. 305-315, 2018.
[24] J. Andrew et al, "Individual Appropriation of Learning Management Systems Antecedents and Consequences" Journal of Transactions on Human–Computer Interaction, vol. 9, no. 3, pp. 173-201, 2017.
[25] C.P. Chen and H..M. Lai, "Why do Teachers continue to use teaching Blogs?" Journal of Computers and Education vol. 82, pp. 236-249, 2015.
[26] P. ChongWoo and R. Arjan, "Information quality as a determinant of Task-Technology Fit in using communication technology for simple task" Issues in Information System vol. 16, no. 1, pp. 189-199, 2015.
[27] Coscharis Motors Limited (2016). www.coscharismotors.com Accessed 5 March 2019.
[28] S. Farid et al, "Mesh Technology Adoption: A proposed Framework" vol. 22, no.10, Special Issue on Ubiquitous Wireless Mesh Networks October 2009, pp. 1245-1266, 2018.
[29] D. L. Goodhue, "Understanding User Evaluations of Information Systems" Management Science vol. 14, no.2, pp. 1827-1977, 1995.
[30] D. L. Goodhue and R.L.Thompson, "Task-Technology Fit and Individual Performance" MIS Quarterly vol. 19, no. no. 2, pp. 213-236, 1995.
[31] K. Huang, and C. Yea-Ru, "Task Technology Fit view of Job search Website Impact on Performance Effects: An empirical analysis from Taiwan" Cogent Business and Management. vol. 3, no. 1, pp. 5-17, 2016.
[32] K. Hyo-Jeong, et al, "Information Technology Acceptance in Internal Audit Profession" Scandinavian Journal of Information Systems vol. 10, no. 4, pp. 214-228, 2009.
[33] O. Isaac, Z. Abdullah and T. Ramayah, "TTF and Performance Impact among Public Sector employees in Yemen" International Journal of Information and Learning Technology, vol. 34, no. 3, pp. 210-241, 2017.
[34] B. A. Khaled, "Task-Technology Fit of MIS and its Impact on MIS User Acceptance and Satisfaction at UNRWA Relief and Social Services Area Offices – Gaza" The Islamic University - Gaza Research and Postgraduate Affairs, 2016.
[35] K. Huang and Y. Chuang, "A Task–Technology fit view of job search website impact on performance effects: An empirical analysis from Taiwan" Cogent Business and Management vol. 3, no. 1, 2016.
[36] F. A. Khan and B. Ahmad, "Mobile wed applications Adoptability in Pakistan" International Journal for Technology and Research vol. 3, no. 2, pp. 30-38, 2016.
[37] B. Kositanurit and K.M. Osei, "Re-examining Information System User Performance", Expert Systems with Application vol. 38, no. 6, pp. 7041-7050, 2011.
[38] F. Lin et al. "Assessing Citizen adoption of E-Government initiatives in Gambia" Government Information Quarterly vol. 28, no. 2, pp. 271-279, 2011.
[39] G. Loukas, "Cyber Physical Attacks on Implants and Vehicles IN CYBER-PHYSICAL ATTACKS: A Growing Invisible Threat. ed" by Anon Oxford, England: Elsevier, pp. 82-102, 2015.
[40] Oliveira, T. et al "Extending the understanding of Mobile Banking Adoption" International Journal of Information Management vol. 2014, pp. 689-703, 2014.
[41] I. Osama et al, Integrating User Satisfaction and Performance Impact with Technology Acceptance Model to examine the internet usage within Organizations in Yemen. Asian Journal of Information and Technology, vol. 17, no. 1, pp. 60-78, 2018.
[42] Osang, F.B. "Task Technology Fit and Lecturers Performance Impacts: The Technology Utilization, Satisfaction and Performance (TUSPEM) Dimension" International Journal of Computer Science Issues, vol. 12, no. 3, May 2015.
[43] G. Pan et al, "An Empirical study on the acceptance of 4D BIM in EPC projects in China. Special Issue Project Management Practices for Sustainable EPC Projects Submission vol. 11, vol. 5, pp. 1-19, 2019.
[44] C.W. Park, "Information Quality as a determinant of Task Technology Fit in using Communication Technology for simple task" Issues in Information System vol. 16, no. 1, pp. 189-199. 2015.
[45] K. A. Sayyed, et al "Assimilation of TTF and UTUAT for Mobile Banking" International Journal of Advanced Engineering, Management and Science (IJAEMS) April vol. 4, no. 4. 2018.
[46] A. M. Sharif and F. Hussain, Social Influence, "Voluntariness, Experience and Internet Acceptance" Journal of Enterprise Information Management vol. 24, no. 1, pp. 30-52, 2011.
[47] E. S. Suhendra, and B. Hermana, "Behavioural Analysis of Information Technology Acceptance in Indonesia" Paper presented at EconAnadolu 2009: Anadolu International Conference in Economics June pp. 17-19, Eskişehir, Turkey, 2009.

[48] A. Y. Sun, B. B. Anol and Q. A. Ma, "Extending Technical Usage of Work settings" MIS Quarterly vol. 33, no. 2, pp. 419-432, 2009.
[49] L. P. Berg and J. M. Vance, "Industry Use of Virtual Reality in Product Design and Manufacturing: A Survey" Mechanical Engineering Publications pp. 1-31, 2017. http://dx.doi.org/10.1007/s10055-016-0293-9.
[50] C. Tam, "Understanding the impact of M-banking on Individual Performance" Computers in Human Behaviour, vol. 61, pp. 233-244, 2016.
[51] V. Chooprayoon and C. Che Fung, TECTAM: An Approach to Study Technology Acceptance Model (TAM) in Gaining Knowledge on the Adoption and Use of E-Commerce/E-Business Technology among Small and Medium Enterprises in Thailand", 2010. E-commerce, Kyeong Kang (Ed.), ISBN: 978-953-7619-98-5, In Tech, Available from: http://www.intechopen.com/books/e-commerce/tectam-an-approach-to-studytechnology-acceptance-model-tam-in-gaining-knowledge-on-the-adoption-and
[52] J. Wu, "A Meta-analysis of the Role of Environment based on Voluntariness in Information System" MIS Quarterly vol. 33, no. 2, pp. 419-432. 2009.
[53] S. Ernie et al, "Information System Acceptance and User Satisfaction" vol. 33, no. 5, Special Issue: Deep Phenotyping for Precision Medicine pp. 803-808, May 2012.
[54] P. Chithambaranathan, N. Subramanian, A. Gunasekaran and PL.K. Palaniappan, "Service supply chain environmental performance evaluation using grey based hybrid MCDM approach" International Journal of Production Economics, vol. 166, pp.163-176, https://doi.org/10.1016/j.ijpe.2015.01.002, 2015.
[55] F. Dweiri, S.U. Kumar, S.A. Khan and V. Jain, "Designing an integrated AHP based decision support system for supplier selection in automotive industry" Expert Syst. Appl., vol. 62, pp. 273-283, 2016.
[56] L. P. Berg and J. M. Vance, "Industry use of virtual reality in product design and manufacturing: a survey", Journal Virtual Reality Vol. 21, no. 1, pp.1-17, 2017.
[57] M. Wollschlaeger, T. Sauter and J. Jasperneite, "The Future of Industrial Communication: Automation Networks in the Era of the Internet of Things and Industry 4.0," in IEEE Industrial Electronics Magazine, vol. 11, no. 1, pp. 17-27, March 2017. doi: 10.1109/MIE.2017.2649104
[58] K. Al-Qeisi, "Perceived fit and satisfaction on web learning performance: IS continuance intention and task-technology fit perspectives" International Journal of Human-Computer Studies vol. 70, no. 7, pp. 498–507, July 2014. DOI: 10.1016/j.ijhcs.2012.01.006
[59] K.M. Lin, "E-learningcontinuanceintention:moderatingeffectof user e-learning experience" Computers&Education vol. 56 no. 2, pp. 515–526, 2012.
[60] World Economic Forum. “Drivers of Change” At http://reports.weforum.org/future-of-jobs-2016/driversof-change, 2016.
[61] K. Schwab, "The Fourth Industrial Revolution" New York: Crown Business, 2017.
[62] B. Kitchenham, "Procedures for performing systematic reviews" Technical report TR/SE-0401, Keele University. 2004. http://www.scientificcommons.org/42461878.
[63] C. Okoli, "A Guide to Conducting a Theory-Driven Systematic Review", John Molson School of Business, Concordia University, 2011.
[64] S. Checkoway, D. McCoy, B. Kantor, D. Anderson, H. Shacham, S. Savage, K. Koscher, A. Czeskis, F. Roesner, and T. Kohno, 'Comprehensive Experimental Analyses of Automotive Attack Surfaces' USENIX Security Symposium, San Francisco, 2011.
[65] H. Onishi, 'Paradigm Change of Vehicle Cyber Security' 4th International Conference on Cyber Conflict, CYCON 2012. pp. 5-8, Tallinn, June 2012.
[66] J. Bessen, "Automation and Jobs: When Technology Boosts Employment" 69th Economic Policy Panel Meeting, Tallinn, pp. 1-49, 4-5 April 2019.