

## **The Impact of Motivation on Employees Productivity in The Retail Sector: The Mediating Effect of Compensation Benefits**

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### **Abstract**

All companies aspire to compete against their rivals, retain a strategic edge in the industry, gain the largest market share and be inspired to bring out their utmost to achieve their desired goals at work. Few businesses think they will gain growth and wealth by important assets for their workers. Unfortunately, most companies appear to exploit the dismissal of their workers and talented applicants. Recognizing the critical position of workers appears to have a major effect on operational performance as most companies aim to maintain staff by empowering and enhancing the working standards of their employees. Therefore, it is necessary to enforce certain techniques to retain high quality and ensure performance and efficiency. The research examined the influence of organizational participation and encouragement in banks' work results. A study of 100 participants was tested, and findings were evaluated using the chi-square analysis. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. The quantitative approach and qualitative framework have been used to analyze their perception of the effects of job retention on the success of workers.

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Approach a single case study for various branches by implementing a similar case study and addressing a larger number of samples. This allows the researcher to remove the survey challenge and hold evidence from a larger community with a deeper comprehension of the idea of encouragement and how it influences workers' output.

**Keywords:** *Motivation, performance, compensation benefits, satisfaction, commitment.*

## **Introduction**

The workers prefer to operate in the sector to achieve the organization's priorities and objectives. Therefore, the manager's job consists of several facets that involve leadership, negotiating, decision-making, communication, and workplace encouragement [1-3]. The management's principal battle is seeking to redesign management, owing to the dynamic workplace and technological abilities of administrators, which are deemed inadequate to inspire the workers at work [4-7]. Thus, managers require strong working partnerships with their workers, and this can be accomplished by giving encouragement and incentive to enhance employees' organizational efficiency and efficiency [8-12]. However, inspiration and participation are the core human resource in the company as they can improve organizational efficiency and achieve job satisfaction [13-17].

## **Statement of Problem**

The workers prefer to operate in the sector to achieve the organization's priorities and objectives [18-23]. Therefore, the manager's job consists of several facets that involve leadership, negotiating, decision-making, communication, and workplace encouragement. The management's principal battle is seeking to redesign management, owing to the dynamic workplace and technological abilities of administrators, which are deemed inadequate to inspire the workers at work [24-29]. Thus, managers require strong working partnerships with their workers, and this can be accomplished by giving encouragement and incentive to enhance employees' organizational efficiency and efficiency. However, inspiration and participation are the core human resource in the company as they can improve organizational efficiency and achieve job satisfaction [30-35].

## **Importance of the Study**

The analysis focuses on the effects of inspiration and its importance on employee satisfaction

and corporate success to improve employee productivity [36-37]. Motivation is known as a major human resources activity to be incorporated at work to improve employee efficiency. Many motivational methods are available, including incentive strategies, preparation and growth, financial incentives, non-financial rewards, recognition and help, and much more [38-45].

### **The Concept of Motivation**

Motivation is a psychological force directed at identifying the course of employee actions in the company[46-53]. It is also characterized as an attempt on employees to accomplish the target result within a defined environment [54-59]. The definition of motivation is broader, and three key motivational elements involve direction, strength and determination that contribute to a study carried out by Jones & George [60]. As for guidance, it is describing itself as an objective that forces an employee to perform a given role, and the management selects this task and must satisfy the organizational objectives. However, internal and external considerations will cause the employee to follow a particular target and the end aim is the best replacement [61-67].

Persistence may essentially be described as the ability for workers to inspire even when barriers and difficulties occur [68-71]. A driven person can make more sacrifices to obtain a positive outcome than an unmotivated employee. If the aims are accomplished, the workers are happy and innovative, producing a healthy job mood. Furthermore, Richard and Edward break motivation into two kinds and motivation is intrinsic and external [72-78].

If an individual is inspired, it implies he likes his work and is prepared to continue. Research has shown that workers with innate encouragement appear to function with zeal and seek optimum outcomes to develop their learning qualifications and skills. Extrinsic motivation relates to the success of the tasks to accomplish the wanted purpose or objective. The job setting, such as the work environment, climate, incentives and promotions, provides intense encouragement [79-83].

### **Motivation Methods**

There are various methods to inspire workers in the organization. Analysis has shown that something significant about their life is the strongest motivator for workers [84-89]. Various

workers have various principles and methods and thus have varying needs. The management function here is to research the employees' needs and to work to fulfil them [90-97]. Once these expectations are fulfilled, workers are inspired at work, and their efficiency improves [98-108].

He has shown that financial incentives like money are known as the strongest drivers for the workers in the research performed by Jan Ketil [109]. For workers who join the scheme "paying employees," the money is treated as a right and wealth rather than mere cash incentives. This is the key explanation why people try to replace their positions because they want their life and working environments to be changed [110]. On the other side, there are other motivators like self-accomplishment, appreciation, promotion, development and accountability, and employee involvement, which had played an important role in improving employee motivation [111].

They feel controlled and productive by encouraging their workers in the workplace and feel like they can take action in the workplace and participate in their everyday jobs [112]. They feel accountable and ready to carry out this job successfully and efficiently once the mission is complete [113-115]. Previous findings have found that strongly engaged workers appear to have greater efficiency and output in the organization [116-119].

The incentive for achievements can be described as the need for achievement and demonstrates the need to establish excellence. Accomplishments can vary depending on the needs [120-127]. They are inspired because the workers believe they have a position in the workplace. Advances are a motivator that reveals possibilities to reach a better workplace status and greater wages and further compensation [[128-135].

### **The Importance of Motivation on Organizational Effectiveness**

All companies aspire to compete against their rivals, retain a strategic edge in the industry, and gain the largest market share. Workers should be inspired to bring out their utmost to achieve their desired goals at work [136]. Few businesses think they will gain growth and wealth by important assets for their workers. Unfortunately, most companies appear to exploit the dismissal of their workers and talented applicants [137-140]. Recognizing the

critical position of workers appears to have a major effect on operational performance as most companies aim to maintain staff by empowering and enhancing the working standards of their employees. Therefore, it is necessary to enforce certain techniques to retain high quality and ensure performance and efficiency.

### **Maslow Hierarchy of Needs**

Abraham Maslow conducted the first philosophy of inspiration which was regarded as the Hierarchy of Requires. This theory shows five different human needs, from the basic to the most complex, in a hierarchical order. To describe his theory, Abraham Maslow used the terms 'physiological security, assets, esteem and updates.' The core of its theory is the maintenance of the highest level of self-updating. Since they are vital for the survival of employees no matter what, physiological needs are considered the main requirements. Sustainability cannot be maintained without food and minimum wages. Therefore, such needs should be satisfied first of all, and when such needs are met, the individual seeks to meet the protection requirements.

In addition to protecting job opportunities and families, other needs require personal security of the health and family alike. The demand for these requirements is growing every day. This is not just a desired place to live; it is a sense of security and a lack of danger and pain. Employees with job instability could call for this, and these requirements can be satisfied if employers provide employment security and the tools required to satisfy and retain their employees.

Liebe and belonging and is directly linked to psychological needs is the following level of needs. When employees' basic needs are met, their need for interpersonal, participation, and acceptance is social and friendships. It can be part of a working group, organizations, enterprises or families. There are much evidence of persons living in sole, antisocial or depressed life that none can deny the importance of charity and their needs in human lives. They can, however, create satisfactory rewards systems for employers in a business context and implement organizational programs to meet the employees' needs.

Regarding Maslow's fourth level of the hierarchy, it explains the need to appreciate it as all people strive to achieve stability and assess themselves highly for themselves and others. This level is achieved when an individual feels unhappy and takes advantage of the tasks he performs. Finally, self-actualization can be categorized as Maslow's hierarchy of needs at their highest level. This level explains the need to become all the people want and feel a sense of success. Once self-actualization has been achieved, employees tend to focus on themselves and improve their knowledge and acquire new skills to take on new tasks at work and face more challenges. In summary, Maslow's needs hierarchy can be described as workers motivated and influenced by personal wants and objectives and who are only motivated by unsatisfied needs, as satisfied needs do not.

### **Herzberg's Two-factor Theory**

Two factory theories by Frederick Herzberg explained the conduct of employees, which is influenced by two distinct factors which contribute to satisfaction and dissatisfaction. He thinks that these factors can motivate and satisfy workers at work and lead them to a high turnover rate, leading to a demotivation of employees at work. In addition, Frederick Herzberg identified two components that could lead to employee satisfaction or dissatisfaction, which are both the hygiene factors and the driving forces.

Personal performance, recognition of status, responsibility, growth and promotion are the motivating factors. They are described as factors that tend to be intangible and address emotional and/or financial needs. Hygienic factors, however, concern interpersonal relationships, working conditions, quality of supervision, wages, etc. and are known as foreign factors. These factors are considered tangible and are classified as necessities since they relate to external recompenses and money and the contrary to factors that directly impact the employees' desire and motivation. The hygiene factors will not motivate but can eliminate satisfaction and lead to demotivation instead of motivational factors.

### **Vroom's Expectancy Theory**

Vroom [55] published this hypothesis to explain how the individual decides to do a series of activities over another and focus on the job and how it is associated with corporate priorities. In this principle, the employee is driven by three factors: expectancy, instrumentality and

valence, which are the intended outcome. The expectation was described as the expectation of employees that their actions contribute to the desired workplace results and performance. The assessment of the type and the sum of commitment to produce the required outcomes and optimize efficiency is often regarded. Secondly, resources and values are related to goals obtained, including incentives or penalties. The second aspect is resources. For example, when workers are assured that the good work they perform would be paid for and appreciated, they are ready to do better at work. The last part is the valence factor that depends on workers' expectations of success incentives or punishments. If workers believe the incentive or penalty is well received for the work they need, they are encouraged to make a greater effort to gain more money.

### **Types of Rewards**

The reward is the main factor to discuss while the incentive issue is addressed, and the mechanism is referred to as a reward. It's not only a bonus; it's an underlying emotional force that facilitates further work from the improved norm. Some people feel it has to be a steady and constant management endeavour.

#### **Monetary Rewards**

The traditional approach to promoting Motivation, success and Direct and Indirect Payment is highly regarded as monetary incentives. The first one includes wages, benefits, and money, which are both necessary for hiring and empowering skilled workers.

#### **Non-Monetary Rewards**

Non-monetary incentives may be listed in many ways, such as the employers' appreciation of employment credits, which tells the employee how important his or her role is, which makes the employee make more sacrifices and improves his or her abilities. This is an important component in the organization's exposure that helps it to make the best use of its personnel and develop its strategic ambitions on a long-term basis.

### **The Importance of the Reward System**

The scheme has several valuable effects. Workers need to understand when it is paying for bonuses in many ways, such as salaries higher, for example, both offered and granted to their employees for success. Money is a motivator to high expectations, as seen by accountants and economists. It is also a critical motivator to relate the inspiration theories mentioned in this portion. It is important to consider the different consequences on two occasions when addressing cash in the case of a strong motivator: Money is of significant significance, in absolute words, because of its value-related buying ability. As an indicator of social standing, money is significant.

### **Incentive Schemes**

Countless qualities are known as a driving factor that may influence workers in numerous ways. In his view, Schumacher addressed the idea of motivation whereby people strive mainly for income to set a certain level of life that they choose to preserve and fulfil, which is first and foremost a love for that principle. Many big corporations globally and globally use money to maintain well-qualified and appropriate workers and not encourage employees. Most study indicates that bonuses differ in their form and strengths, which cannot all be driven by such studies that suggest that the money.

## **Empirical Literature**

### **Relationship between Job Satisfaction and Motivation**

Previous experiments were carried out to research the correlation between work satisfaction and motivation. A study conducted by Okilo examined the impact on Nigerian banks of job satisfaction and encouragement. The thesis was performed on a panel of 300 respondents, with regression analysis evaluated for the findings. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. To research, the impact of happiness in the function of workers in European banks, Abigail tackled a survey of 400 respondents and used inferential statistics to evaluate outcomes.

### **Relationship between Organizational Commitment and Motivation**

Montenegro study examined the influence of organizational participation and encouragement in banks' work results. A study of 100 participants was tested, and findings were evaluated using the chi-square analysis. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. Warnock carried out an additional study on the impact of organizational engagement on employee efficiency in German banks; Warnock analyzed a survey of 250 respondents. The findings showed a substantial and optimistic degree, and the more organizational participation, the more the workers are eager to succeed, indicating the clear correlation between the study variables. This appears to have a positive effect on corporate efficiency.

Further study by Ahmed, using both quantitative and qualitative methodology, on the effects of inspiration and organizational participation on an estimated 350 participants. The findings have demonstrated that the more individuals dedicate themselves to the company they operate, the better their efficiency; there is a strong correlation between organizational participation and employee performance.

### **Relationship between Employee Retention and Motivation**

Okilo [22] study investigates the impact of staff retention and morale on retail success in Canada. A survey of 150 respondents was carried out, and the findings were evaluated using a chi-square analysis. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. Another investigation was undertaken by Abigail (2009) to research the impact of staff retention on US banks performance; a survey of 210 respondents was discussed, and descriptive and inferential statistics were used to evaluate the findings.

The findings demonstrated a substantial and optimistic amount, and the greater the retention of the employee at the workplace and the stronger the direct connection between the testing variables. This appears to have a positive effect on corporate efficiency. Further study by Mitchel utilizing both the objective and the qualitative approaches for inspiration and worker retention on a group of 50 people. The quantitative approach and qualitative framework have been used to analyze their perception of the effects of job retention on the success of workers.

### **Relationship between Financial Rewards and Motivation**

Okilo [78] investigates the effects of financial incentives and encouragement on Nigerian banks' results. The thesis was performed on a panel of 300 respondents, with regression analysis evaluated for the findings. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. Another research by Abigail studied the effects of financial awards for the success of workers in European Banks, presented a survey of 400 respondents and evaluated findings with inferential statistics. The findings indicate an important and beneficial feature. The greater cash incentives in the workplace are, the more workers are likely to succeed, and the more clear the correlation between study variables is expressed in that. This appears to have a positive effect on corporate efficiency.

### **Relationship between Non-financial Rewards and Motivation**

A study by Okilo examines the effects of non-financial incentives and incentive on US banks' workplace results. A survey of 400 respondents was carried out, and the findings were evaluated using regression analysis. The findings revealed a substantial level below 5% which indicates that the study variables are closely linked. He researched the impact of non-financial incentives in African banks, discussed a survey and evaluated the findings using inferential statistics to study employee results in the African banks. Mitchell has performed a variety of other research projects. The findings indicate that the study variables are important and constructive, which is a clear correlation between them. This appears to have a positive effect on corporate efficiency.

### **The Relationship between Intrinsic and Extrinsic Motivation**

There is certainly a distinction between inherent Motivation and Extrinsic Motivation, but researchers suggest they affect each other. Deci claims that external motivators often decrease internal motivators. He says money can decrease the incentive intrinsically by utilizing it continuously. If money is not handled contingently, this won't happen. Amabile suggests that while international encouragement can also have a reinforcing impact, intrinsic motivation is the opposite. In her research, both principles were also claimed to improve the

commitment of workers to work but have separate impacts on them. Extrinsic and inherent motivators may be inferred because they can motivate workers to conduct their duties, each of which may reinforce each other. However, in some specific circumstances, extrinsic motivators can minimize inherent ones. In addition, experts claim that workers are not similarly driven since some are more extrinsically motivated and others appear to be naturally motivated.

### Regression

		Correlations	
		Working Conditions	Employee Performance
Working Conditions	Pearson Correlation	1	.989**
	Sig. (2-tailed)		.000
	N	100	100
Employee Performance	Pearson Correlation	.989**	1
	Sig. (2-tailed)	.000	
	N	100	100

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989 <sup>a</sup>	.977	.977	.04935

a. Predictors: (Constant), Working Conditions

Coefficients						
Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
(Constant)	.025	.010			2.447	.016
1 Working Conditions	1.215	.019	.989		65.054	.000

a. Dependent Variable: Employee Performance

The regression analysis found that a significant amount of 0.016 was smaller than 0.05, meaning that the "no statistical association is formed between working conditions and employee results" dismissed null hypotheses and that "there is no statistical correlation between working conditions and employee performance" approved alternative hypotheses. The R-Square displayed a level of 97,7%, which is well above 25%, which indicates the close correlation between the above variables. As for Pearson Correlations, the ratio showed a 98.9 percent relation, indicating that the above variables are positively associated.

### Correlations

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		Employee Performance	Training And Career Dev	
Employee Performance	Pearson Correlation	1	.993**	
	Sig. (2-tailed)		.000	
	N	100	100	
Training And Career Dev	Pearson Correlation	.993**	1	
	Sig. (2-tailed)	.000		
	N	100	100	
<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.993 <sup>a</sup>	.986	.986	.03849
a. Predictors: (Constant), Training And Career				

<b>Coefficients</b>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.019	.008		2.379	.019
1 Training and Career	1.191	.014	.993	83.779	.000
a. Dependent Variable: Employee Performance					

The test shows the importance of 0.019, below 0,05, i.e. to deny the "no statistical association between teaching and job growth and employee results," which means "there is no statistical correlation between training and professional development and employee performance."

<b>Correlations</b>			
		Employee Performance	Motivation
Employee Performance	Pearson Correlation	1	.982**
	Sig. (2-tailed)		.000
	N	100	100
Motivation	Pearson Correlation	.982**	1
	Sig. (2-tailed)	.000	
	N	100	100

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982 <sup>a</sup>	.965	.965	.06119
a. Predictors: (Constant), Motivation				

<b>Coefficients</b>					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		

1	(Constant)	.049	.012		4.015	.000
	Motivation	.918	.018	.982	52.138	.000

a. Dependent Variable: Employee Performance

The research shows a typical 0.00 error smaller than 0.05, which is a rejection of H0, where it notes that "There is no statistical connection between motivation and the worker results." "There is a statistical correlation between motivation and employee performance", and the alternate theories are acknowledged.

<b>Correlations</b>				
		Employee Performance		Engagement
Employee Performance	Pearson Correlation	1		.985**
	Sig. (2-tailed)			.000
	N	100		100
Engagement	Pearson Correlation	.985**		1
	Sig. (2-tailed)	.000		
	N	100		100

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.985 <sup>a</sup>	.971	.971	.05596

a. Predictors: (Constant), engagement

<b>Coefficients</b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.022	.012		1.906	.006
	Engagement Av	1.579	.028	.985	57.175	.000

a. Dependent Variable: Employee Performance

In the test, the typical loss of 0.006 is below 0.05, indicating that H0, "there are no statistical relations between employee participation and employee results," was rejected. The alternate explanations were agreed that "the employee contribution is statistically associated with employee performance.

### Validity and Reliability

<b>Reliability Statistics</b>	
Cronbach's Alpha	N of Items
.990	5

The purpose of the above test is to examine whether or not the data gathered was accurate based on the Cronbach Alpha predictor. The Cronbach Alpha is 0,990, 0.7-1; this means that the obtained data is accurate and evaluated.

### Pearson Correlations

		<b>Correlations</b>				
		Working Conditions	Training And Career	Employee Performance	Motivation	Engagement
Working Conditions	Pearson Correlation	1	.994**	.989**	.995**	.993**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	100	100	100	100	100
Training And Career	Pearson Correlation	.994**	1	.993**	.991**	.991**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	100	100	100	100	100
Employee Performance	Pearson Correlation	.989**	.993**	1	.982**	.985**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	100	100	100	100	100
Motivation	Pearson Correlation	.995**	.991**	.982**	1	.989**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	100	100	100	100	100
Engagement	Pearson Correlation	.993**	.991**	.985**	.989**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	100	100	100	100	100

The above-mentions test has been done to test if the relationship among the variables is good or good, and the findings revealed that all the variables are positive as the table indicates that the Pearson coefficient is a positive one.

### Findings

The results revealed that working conditions and efficiency are directly beneficial and solid because the better the working conditions, the better the workers' performance. This is because workers may perform in terms of job versatility and delegation in the workplace when they get positive atmosphere and working conditions. This helps to improve their confidence and their workplace skills. Therefore, companies with decent working practices appear to achieve better than workers working in weak cultures.

The study outcomes have often demonstrated that recruitment and job growth are also influential in the advancement of worker efficiency in the workplace. Because recent research has demonstrated that most workers withdraw from the workplace to pursue new job prospects, companies adopt fast-track systems that provide preparation and growth to increase their expertise and grow their personal life, the attrition of employees reduces. Through doing so, they increase quickly and effectively. Organizations that plan to carry out formation and growth activities tend to do better than organizations that do not carry out preparation and development initiatives.

Furthermore, the results show that enthusiasm is one of the key drivers to achieve employee success excellence. Motivated workers are more effective than demotivated employees because they can work harder to fulfil their targets. This will be achieved by introducing longevity and salary incentive plans focused on the wishes of workers to meet and make the most of them. Finally, the results indicate that workers' participation with the employees' success at work directly relates to each other. The greater their involvement and the more duties they are able to do and undertake because they believe they are responsible for their roles in the company.

### **Conclusion**

The researcher only adopted a quantitative approach without taking qualitative methodology into account. The quantitative approach is intended to gather evidence from a broad range of samples. In contrast to qualitative methodology, it is intended to undertake in-depth interviews of identified samples to research their perspective on the impact of motivation on employees' results. Because of the anonymity and scarcity of data in Lebanon, the scientist could not collect a sufficient number of samples and certain institutions declined details or addressed some queries. Certain people could not address the questionnaires because of

secrecy problems, or else they answered the questions alone because they feared risking their employment or being frightened by the boss in the long run short time constraints since most people couldn't find the time to finish the questionnaires because they were filled with work. The thesis analyzed the variables listed. In addition, many other factors may affect employee morale on the job, including salary incentives, talent retention, performance assessments and many other initiatives. The analysis is very broad, as the Lebanese banking sector, in general, has not taken into account the case study. Moreover, owing to tight time limitations, it is difficult to explore all facets of the study.

### **Recommendations**

Introduce quantitative and qualitative methodologies to retain reliable notes and research management perspectives on the issues that may influence the motivation of workers at work. Extensive interviews with business representatives may achieve this to gather data and spread a survey over broad surveys so that data collection and interpretation stay reliable. Approach a single case study for various branches by implementing a similar case study and addressing a larger number of samples. This allows the researcher to remove the survey challenge and hold evidence from a larger community with a deeper comprehension of the idea of encouragement and how it influences workers' output. Discuss emerging parameters, including compensatory incentives, track initiatives, success reviews and engagement measures for workers. Introduction of retention measures that inspire and attract skilled workers in the workplace. It will enable administrators to improve team attrition and reduce preparation and overall expenses levied on the employment of new workers. A lack of motivation understanding in the Libyan industry provided that most organizations technically and not know. Motivation is the key factor behind the high attrition rate for workers, as no motivating techniques are in effect and are not applied on the job site. Lack of training and advancement initiatives in businesses contributes to qualified workers resigning and searching for a new job to contribute their talents to them and see career improvement. However, this is wrong, and workers have particular requirements to be fulfilled. Some require cash incentives such as salaries, whereas other rewards such as promotions and appreciation require non-financial revenge. Research managers' point of view and suggest forms of increasing enthusiasm and communication abilities at work to reduce sales and improve efficiency.

## References

1. Alabdullah, T.T.Y., Ahmed, E.R., & Abushammala, S. (2020). Growth of Companies: Empirical Study of the Companies Listed in Developing Economies. *Journal of Accounting Science*, 4(2), 1-10.
2. Ahmed, E.R., Alabdullah, T.T.Y., Thottoli, M.M., & Maryanti, E. (2020). Does Corporate Governance Predict Firm Profitability? An Empirical Study in Oman. *The International Journal of Accounting and Business Society*, 28(1), 127-143.
3. Metwaly, A.F., Rashad, M.Z., Omara, F.A., & Megahed, A.A. (2014). Architecture of multicast centralized key management scheme using quantum key distribution and classical symmetric encryption. *The European Physical Journal Special Topics*, 223(8), 1711-1728
4. Farouk, A., Zakaria, M., Megahed, A., & Omara, F.A. (2015). A generalized architecture of quantum secure direct communication for N disjointed users with authentication. *Scientific reports*, 5(1), 1-17
5. Naseri, M., Raji, M.A., Hantehzadeh, M.R., Farouk, A., Boochani, A., & Solaymani, S. (2015). A scheme for secure quantum communication network with authentication using GHZ-like states and cluster states controlled teleportation. *Quantum Information Processing*, 14(11), 4279-4295
6. Wang, M.M., Wang, W., Chen, J.G., & Farouk, A. (2015). Secret sharing of a known arbitrary quantum state with noisy environment. *Quantum Information Processing*, 14(11), 4211-4224
7. Zhou, N.R., Liang, X.R., Zhou, Z.H., & Farouk, A. (2016). Relay selection scheme for amplify-and-forward cooperative communication system with artificial noise. *Security and Communication Networks*, 9(11), 1398-1404.
8. Zhou, N.R., Li, J.F., Yu, Z.B., Gong, L.H., & Farouk, A. (2017). New quantum dialogue protocol based on continuous-variable two-mode squeezed vacuum states. *Quantum Information Processing*, 16(1), 1-16
9. Abdolmaleky, M., Naseri, M., Batle, J., Farouk, A., & Gong, L.H. (2017). Red-Green-Blue multi-channel quantum representation of digital images. *Optik*, 128, 121-132

10. Naseri, M., Heidari, S., Baghfalaki, M., Gheibi, R., Batle, J., Farouk, A., & Habibi, A. (2017). A new secure quantum watermarking scheme. *Optik*, 139, 77-86
11. Heidari, S., Naseri, M., Gheibi, R., Baghfalaki, M., Pourarian, M.R., & Farouk, A. (2017). A new quantum watermarking based on quantum wavelet transforms. *Communications in theoretical Physics*, 67(6), 732
12. Nagata, K., Nakamura, T., & Farouk, A. (2017). Quantum cryptography based on the Deutsch-Jozsa algorithm. *International Journal of Theoretical Physics*, 56(9), 2887-2897
13. Alabdullah, T.T.Y., Ahmed, E.R., & Nor, M.I. (2020). The World Declining Economy And Coronavirus Pandemic: Systems Should Be Continued. *Russian Journal of Agricultural and Socio-Economic Sciences((RJOAS)*, Vol. 6(102).
14. Alabdullah, T.T.Y. and Ahmed, E.R. (2018b). Corporate Governance: To What Extent it is important in the Arab Countries? *International Journal of Science and Research*, Vol.7(11).
15. K. Kankaew, S. Phalaunapat, T. Ekachat and B. Sitikarn, "Service Attributes Attracting the Choice of Passenger: a Comparative Study of Low-Cost Carriers in Thailand," *Linguistica Antverpiensia*, 2021, 1, 2021.
16. Alabdullah, T.T.Y., Ahmed, E.R. (2020). Audit Committee Impact on Corporate Profitability in Oman Companies: an Auditing and Management Accounting Perspective. *JURNAL Riset Akuntansi dan Keuangan Indonesia*, 4(2), 121-128.
17. K. Kankaew, "The Competence that Satisfy Us: Agribusiness and Airlines Business Management Cases," *E3S Web of Conferences*, 175, 13032, 2020.
18. Nagata, K., Nakamura, T., Geurdes, H., Batle, J., Abdalla, S., & Farouk, A. (2018). Creating Very True Quantum Algorithms for Quantum Energy Based Computing. *International Journal of Theoretical Physics*, 57(4), 973-980.
19. K. Kankaew, "The Evolution of Agribusiness Management Values from Labor to Brain Mechanism that Shape Leadership Style," *E3S Web of Conferences*, 175, 13033, 2020.
20. K. Kankaew, "Mindset Development by Applying U Theory and Religious Concept in Educational System: Thailand as as Case," *E3S Web of Conferences*, 164, 12002, 2020.

21. Abulkasim, H., Farouk, A., Hamad, S., Mashatan, A., & Ghose, S. (2019). Secure dynamic multiparty quantum private comparison. *Scientific reports*, 9(1), 1-16.
22. Abulkasim, H., Alsuqaih, H.N., Hamdan, W.F., Hamad, S., Farouk, A., Mashatan, A., & Ghose, S. (2019). Improved dynamic multi-party quantum private comparison for next-generation mobile network. *IEEE Access*, 7, 17917-17926
23. Farouk, A., Alahmadi, A., Ghose, S., & Mashatan, A. (2020). Blockchain platform for industrial healthcare: Vision and future opportunities. *Computer Communications*, 154, 223-235.
24. Zhu, F., Zhang, C., Zheng, Z., & Farouk, A. (2021). Practical Network Coding Technologies and Softwarization in Wireless Networks. *IEEE Internet of Things Journal*, 8(7), 5211-5218.
25. K. Kankaew, "The servicescape of air transport terminal that affecting passenger's satisfaction," *IOP Conference Series:Mater. Sci. Eng*, 918, 012001, 2020.
26. K. Kankaew and P. Trerattanaset, "Contingency theory: the analysis in air transportation on anterior, amid, and afterwards the pandemic in Thailand," *IOP Conference Series:Mater. Sci. Eng*, 918, 012047, 2020.
27. D.K. Sharma, B. Singh, R. Regin, R. Steffi and M.K. Chakravarthi, "Efficient Classification for Neural Machines Interpretations based on Mathematical models," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, 2015-2020, doi:10.1109/ICACCS51430.2021.9441718
28. Ujjainiya, L., & Chakravarthi, M.K. (2015). Raspberry-Pi based cost effective vehicle collision avoidance system using image processing. *ARPJ. Eng. Appl. Sci*, 10(7).
29. Chakravarthi, M.K., Tiwari, R.K., & Handa, S. (2015). Accelerometer based static gesture recognition and mobile monitoring system using neural networks. *Procedia Computer Science*, 70, 683-687.
30. Chakravarthi, M.K., Pannem, V.K., & Venkatesan, N. (2014). Real time implementation of gain scheduled controller design for higher order nonlinear system using LabVIEW. *International Journal of Engineering and Technology*, 6(5), 2031-2038.

31. Chakravarthi, M.K., & Venkatesan, N. (2015). Experimental validation of a multi model PI controller for a non linear hybrid system in LabVIEW. *Telkonnika*, 13(2), 547.
32. Chakravarthi, M.K., Gupta, K., Malik, J., & Venkatesan, N. (2015). Linearized PI controller for real-time delay dominant second order nonlinear systems. *In 2015 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)*, 236-240.
33. Ganesh, D., Naveed, S.M.S., & Chakravarthi, M.K. (2016). Design and Implementation of Robust Controllers for an Intelligent Incubation Pisciculture System. *Indonesian Journal of Electrical Engineering and Computer Science*, 1(1), 101-108.
34. Pannem, V.K., KalyanChakravarthi, M., & Venkatesan, N. (2015). Validation of integer and fractional order PI controllers for a real time non linear process. *In 2015 Global Conference on Communication Technologies (GCCT)*, 84-89.
35. Mohammed, S., Naveed, S., Chakravarthi, M.K., & Venkatesan, N. (2015). Comparative study of controller performance for different real-time hybrid models. *In 2015 Global Conference on Communication Technologies (GCCT)*, (pp. 39-44). IEEE.
36. Chakravarthi, M.K., Vinay, P.K., & Venkatesan, N. (2015). Design and simulation of internal model controller for a real time nonlinear process. *Indian Journal of Science and Technology*, 8(19), 1-6.
37. Chakravarthi, M.K., & Venkatesan, N. (2015). Design and Implementation of Lab View Based Optimally Tuned PI Controller for A Real Time Non Linear Process. *Asian Journal of Scientific Research*, 8(1), 95.
38. Venkatasreehari, R., & Chakravarthi, M.K. (2014). Industrial pollution monitoring GUI system using internet, LabVIEW And GSM. *In 2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)*, 787-791.
39. Sekhar, C., Kranthi, K., & Chakravarthi, M.K. (2017). Traffic signal breach vehicle stop system using IOT. *In 2017 International Conference on Nextgen Electronic Technologies: Silicon to Software (ICNETS2)*, 296-300.

40. Ujjainiya, L., Chakravarthi, M.K., & Soni, A. (2014). Development and implementation of gesture controlled automatic audio system. *International Journal of Computer Applications*, 106(13).
41. Chakravarthi, M.K., & Venkatesan, N. (2018). Adaptive type-2 fuzzy controller for nonlinear delay dominant MIMO systems: an experimental paradigm in LabVIEW. *International Journal of Advanced Intelligence Paradigms*, 10(4), 354-373.
42. Ruttala, U.K., Balamurugan, M.S., & Chakravarthi, M.K. (2015). NFC based smart campus payment system. *Indian Journal of Science and Technology*, 8(19).
43. Ganesh, D., & Chakravarthi, M.K. (2014). Remote web based monitoring and controlling of a nonlinear process using micro controller. In *2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)*, 767-770.
44. Chakravarthi, M.K., & Vinay, P. (2014). LabVIEW based Comparison of various Edge Detection Techniques for Bug Classification. *International Journal of Applied Engineering Research*, 9(19), 6381-6390.
45. Bais, N., Shubha, R., Yamuna, V., & Chakravarthi, M.K. (2018). Smart Mobile Diagnostic Laboratory and Doctor Annunciation System in Ambulances. In *Intelligent Embedded Systems*, 155-162. Springer, Singapore.
46. Jolly, A.R., & Chakravarthi, M.K. (2016). A standalone data logger for fibre optic vibration measurement system using Beaglebone. In *2016 10th International Conference on Intelligent Systems and Control (ISCO)*, 519-522.
47. Kumar, V.S., & Chakravarthi, M.K. (2016). MSP430 data logger: An implementation for stress measurement in concrete structures. In *2016 10th International Conference on Intelligent Systems and Control (ISCO)*, 1-4.
48. Supritha, R., Chakravarthi, M.K., & Ali, S.R. (2016). An Embedded Visually Impaired Reconfigurable Author Assistance System Using LabVIEW. In *Microelectronics, Electromagnetics and Telecommunications*, 429-435. Springer, New Delhi.
49. Ganesh, D., Naveed, S.M.S., & Chakravarthi, M.K. (2016). Design and Implementation of Robust Controllers for an Intelligent Incubation Pisciculture

- System. *Indonesian Journal of Electrical Engineering and Computer Science*, 1(1), 101-108.
50. Chakravarthi, M.K., Gupta, K., Malik, J., & Venkatesan, N. (2015). Linearized PI controller for real-time delay dominant second order nonlinear systems. In *2015 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT)*, 236-240.
51. Chakravarthi, M.K., & Venkatesan, N. (2015). Design and Implementation of Adaptive Model Based Gain Scheduled Controller for a Real Time Non Linear System in LabVIEW. *Research Journal of Applied Sciences, Engineering and Technology*, 10(2), 188-196.
52. Bharat, P.V., & Chakravarti, M. (2014). RF harvesting circuitry for ambient backscatter technology. *International Journal of Applied Engineering Research*, 5769-5778.
53. Chakravarthi, M.K., & Bharath, B. (2012). DIP coated thick films of ZNO and its ethanol sensing properties. In *2012 8th International Symposium on Mechatronics and its Applications*, 1-5.
54. Chakravarthi, M.K., Watekar, P.R., Babu, A.V., Sateesh, M., & Reddy, P.V. Optimization of Silica Glass Micro Fiber for Zero Dispersion Wavelength. In *National Conference on Innovative Paradigms in Engineering Technology (NCIPET-2012) Proceedings*.
55. M.V. Karthik, M.K. Chakravarthi, L.M. Yapanto, D. Selvapandian, R. Harish and K. Subramani, "Optical Analysis of the UPQC using PI Controller in Power flow System," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, 2006-2010.
56. doi: 10.1109/ICACCS51430.2021.9441901
57. M.P. Sathyaseelan, M.K. Chakravarthi, A.P. Sathyaseelan and S. Sudipta, "IoT based COVID De-Escalation System using Bluetooth Low Level Energy," *2021 6th International Conference on Inventive Computation Technologies (ICICT)*, 2021, 174-177.
58. doi: 10.1109/ICICT50816.2021.9358718.

59. C.H.R. Prasad and M K. Chakravarthi, "Failure analysis and prediction for metal jobs using fuzzy computation," *2017 International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)*, 2017, 1159-1163.
60. doi: 10.1109/ICICICT1.2017.8342734.
61. M.K. Chakravarthi, B. Bharath and R.V. Sreehari, "Implementation of an automated drug delivery system using linear actuator," *2015 International Conference on Soft Computing Techniques and Implementations (ICSCTI)*, 2015, pp. 90-93.
62. doi: 10.1109/ICSCTI.2015.7489571.
63. S. Mohammed, S. Naveed, M.K. Chakravarthi and N. Venkatesan, "Comparative study of controller performance for different real-time hybrid models," *2015 Global Conference on Communication Technologies (GCCT)*, 2015, pp. 39-44.
64. doi: 10.1109/GCCT.2015.7342620.
65. V.K. Pannem, M. KalyanChakravarthi and N. Venkatesan, "Validation of integer and fractional order PI controllers for a real time non linear process," *2015 Global Conference on Communication Technologies (GCCT)*, 2015, 84-89.
66. doi: 10.1109/GCCT.2015.7342628.
67. M.K. Chakravarthi, B. Bharath and R.V. Sreehari, "Implementation of an automated drug delivery system using linear actuator," *2015 International Conference on Soft Computing Techniques and Implementations (ICSCTI)*, 2015, 90-93.
68. doi: 10.1109/ICSCTI.2015.7489571.
69. N.A. Jalil, H.J. Hwang, and N.M. Dawi, "Machines learning trends, perspectives and prospects in education sector," in *ACM International Conference Proceeding Series*, 2019.
70. A.K. Gupta, , T. Maity, H. Anandakumar, and Y.K Chauhan, "An electromagnetic strategy to improve the performance of PV panel under partial shading," *Computers & Electrical Engineering*, Vol. 90, pp.106896. 2021.
71. N.A. Jalil, P. Prapinit, M. Melan, and A. Bin Mustaffa, "Adoption of business intelligence - Technological, individual and supply chain efficiency," in *Proceedings - 2019 International Conference on Machine Learning, Big Data and Business Intelligence, MLBDBI 2019*, 2019.

72. A.K. Gupta, Y.K. Chauhan, and T Maity, "Experimental investigations and comparison of various MPPT techniques for photovoltaic system," *Sādhanā*, 43(8), 1-15, 2018.
73. Vijai C, & Wisetsri, W.(2021). Rise of Artificial Intelligence in Healthcare Startups in India. *Advances In Management*, 14 (1) March (2021):48-52.
74. N.A. Jalil and H.J. Hwang, "Technological-centric business intelligence: Critical success factors," *Int. J. Innov. Creat. Chang.*, 2019.
75. A.K. Gupta, "Sun Irradiance Trappers for Solar PV Module to Operate on Maximum Power: An Experimental Study," *Turkish Journal of Computer and Mathematics Education*, 12(5), 1112-1121, 2021.
76. W. Wisetsri, "The Perception of Brand Personality in the Context of Hotel of Undergraduate Students", 3(1), 1-12, Jun. 2020.
77. N.A. Jalil and K. Kian Yeik, "Systems, design and technologies anxieties towards use of self-service checkout," in *ACM International Conference Proceeding Series*, 2019.
78. A.K. Gupta, Y.K Chauhan, and T Maity and R Nanda, "Study of Solar PV Panel Under Partial Vacuum Conditions: A Step Towards Performance Improvement," *IETE Journal of Research*, 1-8, 2020.
79. Listiningrum, H. D., Wisetsri, W., & Boussanlegue, T. (2020). Principal's Entrepreneurship Competence in Improving Teacher's Entrepreneurial Skill in High Schools. *Journal of Social Work and Science Education*, 1(1), 87-95.
80. B. Singh, N.A. Jalil, D.K. Sharma, S.R, K. Kumar and D. Jebakumar immanuel, "Computational systems overview and Random Process with Theoretical analysis," 2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS), 2021, 1999-2005.
81. doi: 10.1109/ICACCS51430.2021.9441739.
82. Kumar, S., Kumar, P., Wisetsri, W., Raza, M. & Norabuena-Figueroa, R.P. (2021). Social entrepreneurship education: Insights from the indian higher educational courses. *Academy of Strategic Management Journal*, 20(S1),1-14.
83. A.K. Gupta, Y.K Chauhan, and T Maity, "A new gamma scaling maximum power point tracking method for solar photovoltaic panel Feeding energy storage system," *IETE Journal of Research*, vol. 67, no.1, pp.1-21, 2018.

84. U. Zulfiqar, S. Mohy-Ul-Din, A. Abu-Rumman, A.E.M. Al-Shraah, and I. Ahmed, "Insurance-Growth Nexus: Aggregation and Disaggregation," *The Journal of Asian Finance, Economics and Business*, 7(12), 665–675, 2020.
85. <https://doi.org/10.13106/jafeb.2020.vol7.no12.665>
86. Al-Shqairat, Z.I., Al Shraah, A.E.M., Abu-Rumman, A., "The role of critical success factors of knowledge stations in the development of local communities in Jordan: A managerial perspective," *Journal of management Information and Decision Sciences*, vol. 23, no.5, pp. 510-526, Dec. 2020. DOI: 1532-5806-23-5-218
87. Esmaeil, J., Rjoub, H., & Wong, W.K. (2020). Do Oil Price Shocks and Other Factors Create Bigger Impacts on Islamic Banks than Conventional Banks? *Energies*, 13(12), 3106.
88. Alwreikat, A.A., & Rjoub, H. (2020). Impact of mobile advertising wearout on consumer irritation, perceived intrusiveness, engagement and loyalty: A partial least squares structural equation modelling analysis. *South African Journal of Business Management*, 51(1), 11.
89. Alhodiry, A., Rjoub, H., & Samour, A. (2021). Impact of oil prices, the US interest rates on Turkey's real estate market. New evidence from combined co-integration and bootstrap ARDL tests. *Plos one*, 16(1), e0242672.
90. Yıldız, B.F., Hesami, S., Rjoub, H., & Wong, W.K. (2021). Interpretation of Oil Price Shocks on Macroeconomic Aggregates of South Africa: Evidence from SVAR. *Journal of Contemporary Issues in Business and Government*, 27(1), 279-287.
91. Shaheen, R., Ağa, M., Rjoub, H., & Abualrub, A. (2020). Investigation of the Pillars of Sustainability Risk Management as an Extension of Enterprise Risk Management on Palestinian Insurance Firms' Profitability. *Sustainability*, 12(11), 4709.
92. Wisetsri, W., & Maaz, U. D. (2020). The Influence of Leadership, Work Motivation and Organizational Culture on Job Performance. *International Journal of Psychosocial Rehabilitation*, 24(5): 7336-7350.  
doi:10.37200/IJPR/V24I5/PR2020768
93. Hesami, Siamand, Bezhani Rustamov, Husam Rjoub, and Wing-Keung Wong. "Implications of Oil Price Fluctuations for Tourism Receipts: The Case of Oil Exporting Countries." *Energies*, 13(17) (2020): 4349.

94. Wisetsri, W. (2020). The Perception of Brand Personality in the Context of Hotel of Undergraduate Students. *Journal of Multidisciplinary in Humanities and Social Sciences*, 3(1): 1-12.
95. Ibnou-Laaroussi, S., Rjoub, H., & Wong, W.K. (2020). Sustainability of Green Tourism Among International Tourists and Its Influence on the Achievement of Green Environment: Evidence from North Cyprus. *Sustainability*, 12(14), 5698.
96. Alfadli, A., & Rjoub, H. (2020). The impacts of bank-specific, industry-specific and macroeconomic variables on commercial bank financial performance: evidence from the Gulf cooperation council countries. *Applied Economics Letters*, 27(15), 1284-1288.
97. Wisetsri, W. (2017). *Man And Society (1st ed)*. Bangkok: King Mongkut's University of Technology North Bangkok.
98. Alkhurshan, M., & Rjoub, H. (2020). The scope of an integrated analysis of trust switching barriers, customer satisfaction and loyalty. *Journal of Competitiveness*, 12(2), 5.
99. D.S. Hooda, Keerti Upadhyay and D.K. Sharma, "On Parametric Generalization of 'Useful' R- norm Information Measure" *British Journal of Mathematics & Computer Science*, Vol. 8(1), pp. 1-15, 2015.
100. Erülgen, A., Rjoub, H., & Adalier, A. (2020). Bank Characteristics Effect on Capital Structure: Evidence from PMG and CS-ARDL. *Journal of Risk and Financial Management*, 13(12), 310.
101. D.S. Hooda, Keerti Upadhyay and D.K. Sharma, "A Generalized Measure of 'Useful R-norm Information'", *International Journal of Engineering Mathematics and Computer Sciences*, Vol 3(5), pp.1-11, 2014.
102. Wisetsri, W. (2017). Spornosexual: Self-Esteem theory, present body characteristics by online media. Research and Development. *Journal Suan Sunandha Rajabhat University*, 9(2): 24- 33.
103. Pandya, S.; *Ambient Acoustic Event Assistive Framework for Identification, Detection, and Recognition of Unknown Acoustic Events of a Residence*, *Advanced Engineering Informatics*. Elsevier.
104. <http://www.sciencedirect.com/science/article/pii/S147403462030207X>

105. Ghayvat, H.; Pandya, S.; Awais, M. Recognizing Suspect and Predicting the Spread of Contagion Based on Mobile Phone Location Data (COUNTERACT): A System of identifying COVID-19 infectious and hazardous sites, detecting disease outbreaks based on internet of things, edge computing and artificial intelligence, *Sustainable Cities and Society*.
106. D.S. Hooda, Keerti Upadhyay and D.K. Sharma, "Bounds on Cost Measures in terms of 'Useful' R-norm Information Measures" *Direct Research Journal of Engineering and Information Technology*, Vol.2 (2), 11-17, 2014.
107. Pandya S, Wakchaure MA, Shankar R, Annam JR. Analysis of NOMA-OFDM 5G wireless system using deep neural network. *The Journal of Defense Modeling and Simulation*. 2021. doi:10.1177/1548512921999108.
108. D.S. Hooda and D.K. Sharma, "Lower and Upper Bounds Inequality of a Generalized 'Useful' Mean Code Length" *GAMS Journal of Mathematics and Mathematical Biosciences*, Vol. 4(1), 62-69, 2013.
109. Awais, M.; Ghayvat, H.; Krishnan Pandarathodiyil, A.; Nabillah Ghani, W.M.; Ramanathan, A.; Pandya, S.; Walter, N.; Saad, M.N.; Zain, R.B.; Faye, I. Healthcare Professional in the Loop (HPIL): Classification of Standard and Oral Cancer-Causing Anomalous Regions of Oral Cavity Using Textural Analysis Technique in Autofluorescence Imaging. *Sensors*, 2020, 20, 5780. <https://doi.org/10.3390/s20205780>
110. Patel, C.I.; Labana, D.; Pandya, S.; Modi, K.; Ghayvat, H.; Awais, M. Histogram of Oriented Gradient-Based Fusion of Features for Human Action Recognition in Action Video Sequences. *Sensors* 2020, 20, 7299. <https://doi.org/10.3390/s20247299>
111. D.S. Hooda, Keerti Upadhyay and D.K. Sharma, 'Useful' R-Norm Information Measure and its Properties" *IOSR Journal of Electronics and Communication Engineering*, 8, 52-57, 2013.
112. Ghayvat, H.; Awais, M.; Pandya, S.; Ren, H.; Akbarzadeh, S.; Chandra Mukhopadhyay, S.; Chen, C.; Gope, P.; Chouhan, A.; Chen, W. Smart Aging System: Uncovering the Hidden Wellness Parameter for Well-Being Monitoring and Anomaly Detection. *Sensors* 2019, 19, 766. <https://doi.org/10.3390/s19040766>.

113. D.S. Hooda, Sonali Saxena and D.K. Sharma, "A Generalized R-Norm Entropy and Coding Theorem" *International Journal of Mathematical Sciences and Engineering Applications*, Vol.5(2), 385-393, 2011.
114. Barot, V., Kapadia, V., & Pandya, S., QoS Enabled IoT Based Low Cost Air Quality Monitoring System with Power Consumption Optimization, *Cybernetics and Information Technologies*, 2020, 20(2), 122-140. doi: <https://doi.org/10.2478/cait-2020-0021>.
115. D.S. Hooda and D.K. Sharma, "Bounds on Two Generalized Cost Measures" *Journal of Combinatorics, Information & System Sciences*, Vol. 35(3-4), 513-530, 2010.
116. Sur, A., Sah, R., Pandya, S., Milk storage system for remote areas using solar thermal energy and adsorption cooling, *Materials Today*, Volume 28, Part 3, 2020, Elsevier, Pages 1764-1770. <https://doi.org/10.1016/j.matpr.2020.05.170>
117. H. Ghayvat, Pandya, S., and A. Patel, "Deep Learning Model for Acoustics Signal Based Preventive Healthcare Monitoring and Activity of Daily Living," *2nd International Conference on Data, Engineering and Applications (IDEA)*, Bhopal, India, 2020, pp. 1-7, doi: 10.1109/IDEA49133.2020.9170666
118. D.K. Sharma and D.S. Hooda, "Generalized Measures of 'Useful' Relative Information and Inequalities" *Journal of Engineering, Management & Pharmaceutical Sciences*, 1(1), 15-21, 2010.
119. Pandya, S., Shah, J., Joshi, N., Ghayvat, H., Mukhopadhyay, S.C. and Yap, M.H., 2016, November. A novel hybrid based recommendation system based on clustering and association mining. *In Sensing Technology (ICST), 2016 10th International Conference on*, 1-6.
120. D.S. Hooda and D.K. Sharma (2010) "Exponential Survival Entropies and Their Properties" *Advances in Mathematical Sciences and Applications*, 20, 265-279, 2010.
121. Pandya, S., W. Patel, H. Ghayvat, "NXTGeUH: Ubiquitous Healthcare System for Vital Signs Monitoring & Falls Detection", *IEEE International Conference, Symbiosis International University*, December 2018.

122. Ghayvat, H., Pandya, S., “Wellness Sensor Network for modeling Activity of Daily Livings-Proposal and Off-Line Preliminary Analysis” *IEEE International Conference, Galgotias University, New Delhi, December 2018.*
123. D.S. Hooda and D.K. Sharma, “Generalized ‘Useful’ Information Generating Functions” *Journal of Appl. Math. and Informatics*, 27( 3-4), 591-601, 2009.
124. K.B. Adanov, S. Suman Rajest, Mustagaliyeva Gulnara, Khairzhanova Akhmaral (2019), “A Short View on the Backdrop of American’s Literature”. *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 11, No. 12, 182-192.
125. D Datta, S Mishra, SS Rajest, (2020) “Quantification of tolerance limits of engineering system using uncertainty modeling for sustainable energy” *International Journal of Intelligent Networks*, 1, 2020, 1-8.  
<https://doi.org/10.1016/j.ijin.2020.05.006>
126. Leo Willyanto Santoso, Bhopendra Singh, S. Suman Rajest, R. Regin, Karrar Hameed Kadhim (2021), “A Genetic Programming Approach to Binary Classification Problem” *EAI Endorsed Transactions on Energy*, 8(31), 1-8.
127. DOI:10.4108/eai.13-7-2018.165523
128. Pandya, S., Ghayvat, H., Shah, J., Joshi, N., A Novel Hybrid based Recommendation System based on Clustering and Association Mining, *10th IEEE International Conference on Sensing technology and Machine Intelligence (ICST-2016)*, Nanjing, China, November 2016.
129. Pandya, S., W. Patel, An Adaptive Approach towards designing a Smart Health-care Real-Time Monitoring System based on IoT and Data Mining, *3rd IEEE International Conference on Sensing technology and Machine Intelligence (ICST-2016)*, Dubai, November 2016.
130. D.S. Hooda and D.K. Sharma, “Non-additive Generalized Measures of ‘Useful’ Inaccuracy” *Journal of Rajasthan Academy of Physical Sciences*, 7(3), 359-368, 2008.
131. S. Suman Rajest, D.K. Sharma, R. Regin and Bhopendra Singh, “Extracting Related Images from E-commerce Utilizing Supervised Learning”, *Innovations in Information and Communication Technology Series*, 033-045, 2021.

132. Souvik Ganguli, Abhimanyu Kumar, Gagandeep Kaur, Prasanta Sarkar and S. Suman Rajest, "A global optimization technique for modeling and control of permanent magnet synchronous motor drive", *Innovations in Information and Communication Technology Series*, 074-081, 2021.
133. Jappreet Kaur, Tejpal Singh Kochhar, Souvik Ganguli and S. Suman Rajest, "Evolution of Management System Certification: An overview", *Innovations in Information and Communication Technology Series*, 082-092, 2021.
134. Roy Setiawan, Kanchan Rani, Luigi Pio Leonardo Cavaliere, Ngo Tan Hiep, Sudipta Halder, Ismail Raisal, Ruby Mishra, and S. Suman Rajest, "References for Shopping Online Versus in Stores What Do Customers Prefer and How Do Offline Retailers Cope with It?" *Productivity Management*, 25, 1S, 874-898, 2020.
135. S. Suman Rajest Dr. Bhopendra Singh, P. Kavitha, R. Regin, Dr.K. Praghash, S. Sujatha, "Optimized Node Clustering based on Received Signal Strength with Particle Ordered-filter Routing Used in VANET" *Webology*, 17(2), 262-277, 2020.
136. Sooraj Kumar Maurya, Professor Vipin Jain, Roy Setiawan, Alliyarov Ashraf, Kartikey Koti, K.Niranjan, Nik Alif Amri Nik Hashim, and S. Suman Rajest, "The Conditional Analysis of Principals Bullying Teachers Reasons in The Surroundings of The City", *Productivity Management*, 25(5), 1195-1214, 2020.
137. Roy Setiawan, Keshav Nath, Luigi Pio Leonardo Cavaliere, Klinge Orlando Villalba-Condori, Dennis Arias-Chavez, Kartikey Koti, Girish Bagale, and S. Suman Rajest, "The Impact of Teaching Innovative Strategy on Academic Performance in High Schools" *Productivity Management*, 25(5), 1296-1312, 2020.
138. K.K.D. Ramesh, G. Kiran Kumar, K. Swapna, Debabrata Datta, and S. Suman Rajest, "A Review of Medical Image Segmentation Algorithms", *EAI Endorsed Transactions on Pervasive Health and Technology*, 2021, doi: 10.4108/eai.12-4-2021.169184
139. Pandya, S., Ghayvat, H., Kotecha, K., Wandra, K., Advanced AODV Approach For Efficient Detection And Mitigation of WORMHOLE Attack IN MANET, 10th IEEE *International Conference on Sensing technology and Machine Intelligence (ICST-2016)*, Nanjing, China, November 2016.

140. D.S. Hooda and D.K. Sharma, Generalized R-Norm information Measures. *Journal of Appl.Math, Statistics & informatics (JAMSI)*, 4(2), 153-168, 2008.
141. Pandya, S., H. Dandvate —New Approach for frequent item set generation based on Mirabit Hashing Algorithm, *IEEE International Conference on Inventive Computation technologies (ICICT)*, 26 August, India, 2016.
142. Pandya, S., Patel, W., Mistry, V., i-Msrtrm: Developing an IoT based Intelligent Medicare System for Real-time Remote Health Monitoring, *8th IEEE International Conference on Computational Intelligence and Communications Networks (CICN-2016)*, Tehari, India, 23-25th December 2016.
143. Pandya, S., Shah, J., Joshi, N., Ghayvat, H., Mukhopadhyay, S.C. and Yap, M.H., 2016, November. A novel hybrid based recommendation system based on clustering and association mining. In *Sensing Technology (ICST), 2016 10th International Conference on*, 1-6.
144. Dilip Kumar Sharma, “*Some Generalized Information Measures: Their characterization and Applications*”, Lambert Academic Publishing, Germany, 2010. ISBN: 978-3838386041.
145. D.K. Sharma, B. Singh, E. Herman, R. Regine, S.S. Rajest and V.P. Mishra, "Maximum Information Measure Policies in Reinforcement Learning with Deep Energy-Based Model," *2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE)*, 2021, 19-24.
146. doi: 10.1109/ICCIKE51210.2021.9410756
147. F. Arslan, B. Singh, D.K. Sharma, R. Regin, R. Steffi and S. Suman Rajest, "Optimization Technique Approach to Resolve Food Sustainability Problems," *2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE)*, 2021, 25-30. doi: 10.1109/ICCIKE51210.2021.9410735.
148. G.A. Ogunmola, B. Singh, D.K. Sharma, R. Regin, S.S. Rajest and N. Singh, "Involvement of Distance Measure in Assessing and Resolving Efficiency Environmental Obstacles," *2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE)*, 2021, 13-18.
149. doi: 10.1109/ICCIKE51210.2021.9410765

150. D.K. Sharma, B. Singh, M. Raja, R. Regin and S.S. Rajest, "An Efficient Python Approach for Simulation of Poisson Distribution," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS)*, 2021, 2011-2014.
151. doi: 10.1109/ICACCS51430.2021.9441895.
152. Pandya, S., Vyas, D. and Bhatt, D., A Survey on Various Machine Learning Techniques, *International Conference on Emerging trends in Scientific Research (ICETSR-2015)*, ISBN no: 978-81-92346-0-5, 2015.
153. Pandya, S., Wandra, K., Shah, J., A Hybrid Based Recommendation System to overcome the problem of sparsity, *International Conference on emerging trends in scientific research*, December, 2015.
154. Mehta, P., Pandya, S., A review on sentiment analysis methodologies, practices and applications. *International Journal of Scientific and Technology Research*, 2020, 9(2), 601–609.