ISSN: 2278-4632
Vol-11 Issue-02 2021

LEAN ACCOUNTING AWARENESS: A QUALITATIVE STUDY ON LEAN ACCOUNTING PERCEPTION

Bhabani Mallia[1], Dr. Jaya Prakash Tripathy[2]
[1](Basic Science & Humanities, Gandhi Engineering College, Bhubaneswar)
[2](Basic Science & Humanities, Gandhi Engineering College, Bhubaneswar)

ABSTRACT

With the growing market trends, organizations always try to use their resources more efficiently through adoption of better concepts and practices for the improvement of their operational and financial efficiency. This study aims to create better understanding of lean accounting and how industries of Pakistan perceive lean accounting implementation. It also explores the barriers that hinder adoption of lean accounting approach and mitigation strategies. Industries can overcome these barriers to create ease in lean accounting adoption. A qualitative approach was adopted in this research. Semi-structured interviews were conducted to collect data from managers of Textile industries to investigate the barriers and mitigation strategies. The appropriate tests were applied via NVivo 12 to summarize interviews. This study is the first in Pakistan founding significant interest of industries in lean accounting, identifying barriers and mitigation strategies to create ease in adopting lean accounting for the industrial sector of Pakistan and suggesting new directions to the accounting systems.

Key words: Lean Thinking, Lean Accounting, NVivo 12, Barriers, Mitigation

1. INTRODUCTION

Lean thinking can be defined as "a method to create the most value for customers in a minimum cost." It can be achieved by time, energy, effort, and resource maximization. Through the lean approach, we can understand (1) Gemba (what is going on at the place where value is created)
(2) improve the processes (3) empower and develop people through coaching and problem solving, and (4) develop an effective management system and leader's development. Lean thinking and practice allow organizations to become sustainable through becoming competitive and innovative. Previously, lean principles were used in Japan's Toyota factories. However, no matter what the organization's size or what sort of work organizations are doing, lean has become a superior alternative and approach to do work. Problems are opportunities not the mistakes to be resolved quickly or to be swept under the rug.

With changing trends this approach can be applied to every department of the organization. Accounting department also plays a significant part in a business. Procedures of accounting differ from the size of the organization. Some have fewer accounting procedures due to small business size, but some organization have larger and complex accounting procedures due to their larger business size. However, accounting have a significant role in every business. When it comes to accounting procedures here comes the concept of traditional accounting and lean accounting. Traditional accounting can be defined as "the set of principles through which financial affairs in a business are reported". Traditional accounting is a process in which overhead costs are allocated to specific products. The principles of traditional accounting develop over time according to the need of business and government regulations and sometimes are very complex to handle due to its non-usefulness. As the data is not useful, it become unnecessary to run a modern business specially organizations

ISSN: 2278-4632
Vol-11 Issue-02 2021

implementing lean principles. On the other hand, Lean accounting can be defined as "the natural corollary to lean management. It attempts to create maximum business efficiency by implementing just in time inventory process and careful consideration of delivery methods and Time-efficient manufacturing". Lean accounting allows organizations to report financial data according to value streams rather than cost per unit reporting. Traditional accounting does not help lean organizations accurately report the effectiveness and efficiency of lean management techniques. Simultaneously, lean accounting allows companies or organizations to see the report and see all the lean management method's benefits.

Nowadays, organizations are being serious about implementing lean thinking but eventually bumps up against their accounting systems. Soon it is realized that traditional accounting cannot handle lean management principle's outputs. There are some drawbacks of traditional accounting in lean implementation organizations, which are 1) complexity 2) size 3) wasteful processes requiring vast amounts of non-value work 4) Large batch production is motivated by traditional accounting because it provides measurements and reports like labor efficiency and overhead absorption 5) It is difficult to identify the financial impact of lean improvements through traditional accounting. Lean accounting provides understandable, timely, and accurate information to motivate the lean transformation throughout the organization. It motivates organizations in decision making leading to growth, cash flow, profitability, and customer value. While maintaining financial control, waste can be eliminated from accounting processes by using lean tools. Lean accounting not only comply with accounting rules and regulation, but it also supports lean culture by empowering continuous improvement at every level of the organization, providing actionable and relevant information and motivating investment in people.

Organizations should involve accounting and finance departments for cost-benefit analysis before and after the implementation of lean practices to measure performance improvements (Kumar, 2010; Mohsin et al., 2019). Previous studies suggest that traditional accounting cannot handle the financial measures of an organization in which lean is implemented. Traditional accounting methods can cause misleading understanding of cost regarding a product and can lead to incorrect decisions on critical issues in an organization e.g. profitability of sales order, whether to buy to make product component and rationalization of customers or product (B. H. Maskell et al., 2017; Naseem et al., 2018).

As lean thinking can be applied to every aspect or department of an organization, adopting and implementing lean accounting methods can resolve accounting problems conveniently (Emiliani, Stec, Grasso, & Stodder, 2007). There are five major objectives of lean accounting: 1) Elimination of waste 2) Elimination of error and defects 3) Freeing up capacity 4) Simplification of processes to help gain better understanding, and 5) Speeding up process. These five significant goals can be achieved by replacing traditional accounting practices with lean accounting practices (Enoch, 2013). Thus, lean operations implementation can eliminate the need for many traditional accounting processes (B. H. Maskell et al., 2017; Mohsin et al., 2020b; Naseem et al., 2019; Naseem et al., 2020a). In today's era, global market volatility is increasing day by day. Firms' 1) growth is necessary according to the volatile situations, 2) are dependent on their ability to sense frequent changes in the market and act accordingly to survive and grow, 3) are focusing on the growing need for lean implementation to increase overall operational and financial performance. This study examines the impact of lean accounting perception in the textile industries of Pakistan. In the past 2 to 3 years' industries are implementing lean tools for enhanced productivity, ultimately causing cost reduction. According to the initial survey conducted by us, organizations are implementing lean tools for enhanced productivity, but they are not adopting lean accounting. There are many international studies on lean accounting (Amusawi, Almagtome, & Shaker, 2019; Elsukova, 2015; Enoch, 2013; Kennedy & Widener, 2008; B. H. Maskell & Kennedy, 2007; Soliman, 2020; Teixeira, dos Santos, Akkari, & Munhoz, 2019; Mohsin et al., 2020a; Naseem et al., 2021, Salamat et al., 2020, Majeed et al., 2020; Naseem et al., 2020b),but there is no study

 ISSN: 2278-4632
Vol-11 Issue-02 2021

conducted in Pakistan on lean accounting. In this paper we aim to find the reasons about why people are not ready to adopt lean accounting.

2. RESEARCH METHODOLOGY

2.1. Research Design

This research used a qualitative approach, and primary data was collected from the Textile industries of Pakistan. We analyzed and compared the organizations that are using and not using lean practices. In order to have balance, we have lean industries as well as those that do not use them. We preferred to use the purposive sampling technique for data collection (Groenewald, 2004). Groenewald (2004) argued that purposive sampling is the most critical type of non-probability sampling. Face-to-face semi-structured and pilot study interviews were adopted from previous studies for data collection purposes. W Creswell, (2016) suggests 3 to 10 informants for interviews while Morse, (1995) suggest 6 informants. A study by Boddy (2016) suggested a sample size of 12 informants is appropriate for any study. So. Twelve for lean companies and 12 for non-lean companies of the textile industry were selected for this study

3. DATA ANALYSIS AND RESULTS

3.1. Data Characteristics

Semi structures interview questions were asked to the respondents. Later the questions were transcribed in NVivo, which are as follows: 1) Please indicate what type of cost accounting system is generally used at your company as "Cost Accounting System" 2) Indicate below the level of lean manufacturing implementation on the production floor as "Level of lean accounting implementation" 3) Indicate below how satisfied you are with your management accounting system as "Satisfaction regarding current management accounting system" 4) Please indicate have you ever heard about these tools. If yes, then how many? as "Tool's awareness"
5) If you currently do not use value stream costing, has your company discussed using value stream costing? as "Have you considered using Value stream costing?" 6) Do you think this idea is beneficial and can be implemented? If Yes, then why and have you implemented this before? If no, then what is the reason? as "Beneficial and implementable" 7) Would you like to implement this concept in your industry/organization? as "Implementation perception" 8) What are the barriers which you think exists for this idea implementation? As "Barriers" 9) How can we mitigate these barriers to implement this idea? As "Barrier's mitigation."

3.2. Cluster Analysis

After the data transcription, cluster analysis was applied. Initially, nine main clusters were identified by the software. Which are 1) Cost accounting system 2) Level of lean accounting implementation 3) Satisfaction regarding current management accounting system 4) Tool's awareness 5) Have you considered using Value stream costing? 6) Beneficial and implementable 7) Implementation perception 8) Barriers, and 9) Barrier's mitigation. The initial analysis is shown in figure 1.

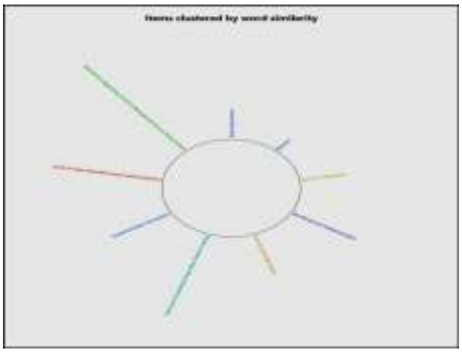

Figure 1 Cluster Analysis

 ISSN: 2278-4632
Vol-11 Issue-02 2021

3.3. Data Coding

Interviewer's views are based on G-D Logic with Gioia Coding, Categories and Aggregate Dimensions (Managers Perspective). Data was first transcribed into NVivo 12, and then interviews were coded according to the 9 identified clusters which are 1) Cost Accounting System, 2) Level of Lean Manufacturing Implementation, 3) Satisfaction regarding current management accounting system, 4) Tools Awareness, 5) Have you considered using Value stream coating, 6) Beneficial and implementable, 7) Implementation perception, 8) Barriers, and 9) Mitigation Strategies. The coding for the above-mentioned clusters is as follows:

Table 1 Cost Accounting System

First Order Codes	Second Order Categories	Aggregate Dimensions
Process Costing is being used in most of the textile industries. This method is widely and commonly used. New accounting methods are not being used due to the lack of understanding Sometimes the hidden drawbacks also put a full stop on new methods adoption	Process Costing is Widely used Lack of Understanding regarding new methods Hidden Drawbacks	Lack of awareness and Understanding

Table 2 Level of Lean Manufacturing Implementation

First Order Codes	Second Order Categories	Aggregate Dimensions
Lean manufacturing implementation is considerable in our organization because every organization is struggling to become efficient and better Lean is a good tool to implement for efficiency and productivity We do not have any proper guidance regarding lean implementation Lean implementation is difficult in our organization due to resource constraints Things need to restart when adopting some new technology Training costs increases Change requires a lot of effort, Time, and resources	Lack of Guidance Considerable Lack of Resources Lack of Motivation Increase in Training Cost	Lack of Motivation, awareness, and guidance

Table 3 Satisfaction regarding current management accounting system

First Order Codes	Second Order Categories	Aggregate Dimensions
Current accounting system is quite considerable It is most used we have not thought to use any different method due to many resource constraints	Considerable System Common No Awareness	Lack of Awareness

Table 4 Tools Awareness

First Order Codes	Second Order Categories	Aggregate Dimensions
Box scores is the method that is most known among industrialists Other methods are unknown Box scores is widely discussed among industrialists to compare progress and goals	Box Score is common Method Widely discusses among industrialists Other tools are unknown	Lack of Lean Accounting tool's Awareness

Table 5 Have you considered using value stream costing?

First Order Codes	Second Order Categories	Aggregate Dimensions
It is an exciting approach We were not considering before We will discuss about adopting it This workshop was interesting detailed enlightenment of this approach	Interesting approach Considerable	Value Stream Costing is Considerable

Table 6 Beneficial and implementable

First Order Codes	Second Order Categories	Aggregate Dimensions
It is beneficial It should be implemented for its highlighted benefits The idea is feasible	Beneficial Feasible Highlighted benefits	Beneficial and Implementable

Table 7 Implementation perception

First Order Codes	Second Order Categories	Aggregate Dimensions
Would like to implement it It is interesting Implementable but presence resource constraints	Interested in implementation Interesting Resource Constraints	Implementable but presence of resource constraints

ISSN: 2278-4632
Vol-11 Issue-02 2021

Table 8 Barriers

First Order Codes	Second Order Categories	Aggregate Dimensions
Workers are not familiar with the technology Fear of unknown Resistance to learn new technology	Unfamiliarity with Technology Resistance to learn new technology	Technology Gap
Discussion about new technology implementation creates worry among the workers regarding their job position. In most of the cases technology implementation brings unemployment.	Fear of losing job New Technology Implementation brings unemployment	Fear of Unemployment
Many workers do not accept new technology due to their fear of them losing their power Sometimes new technology implementation and trainings causes management and supervision change causing demotion from current post.	Fear of Losing Power New Technology cause demotion	Status Quo Among Employees
Employees fear if they can learn this technology or not. If they are not able to learn this technology Is it the end of their job?	Fear of new technology Fear of being able to learn new technology	Fear of Unknown
When new technologies are implemented, reporting structure can be changed. Sometimes the changed supervisor is not that friendly and good to employees It can result demotivation and resistance	Change in reporting Structure due to technological change Uncertainty about supervisor personality Uncertainty causes demotivation and resistance	Reporting Structure Shift
New technology requires new skills Some employees do not show their willingness to learn new skills Employees find it difficult to learn new technology resulting demotivation and resistance	Lack of Willingness to learn new technology	Skill Gap
The transfer of accurate information will keep the operations on track When the new technology is implemented in organization the new knowledge can cause misinterpretation resulting operational disturbance	Accurate information transfer is necessary Misinterpretation results operational disturbance	Lack of Proper Information Transfer

ISSN: 2278-4632
Vol-11 Issue-02 2021

New knowledge can create confusion among employees due to lack of awareness.		
Employees fear that they will be replaced by machine It can result their job loss. This fear does not let employees to accept new technology quickly. This happens mostly with the elderly people	Fear of job loss Resistance to new technology acceptance	Fear of Man to Machine Proportion
Supervision and reporting hierarchy's change can cause breakage in social or workplace bonding due to transfer in another unit/department Its results demotivation and resistance.	Hierarchy change causes breakage in social or workplace bonding	Breakage of Social Circles
Sometimes implementing new technology cause out of the scope exposure. While solving problem with new technological implementation can result exposure of many hidden problems	New things can expose new errors	Out of Scope Exposure
Sometimes employees are well adjusted with working under specific supervisor. When the manager or supervisor gets changed, they become fearful due to manager's attitude as the manager was previously not good with them	Difficult to Adjust with new supervisor Employees fear due to bad experience with previous managers	Fear of Managerial Hold Change
Majority of the times employees perceive that technology increases accountability factor which makes them more demotivated.	Technology increases accountability Accountability creates fear among employees to justify every little thing	Increase of Accountability Factor
Employees perceive that the technological change can cause change in their hold which makes them believe the technological practice as the unfair practice.	Perception about technological practice as an unfair practice	Unfair Practice
When the benefits of the new technology are unknown, resistance is natural.	Unknown benefits results resistance for new technology	Value of Technology is not known
When the application of new technology is not known, employees fear of being replaced because of their	Perception about Unable to learn new technology Fear of being replaced	How to Apply technology is not known

ISSN: 2278-4632
Vol-11 Issue-02 2021

perception about not being able to learn new technology.		
When the use of new technology is not known, employees fear of being replaced because of their perception about not being able to learn new technology	Use of Technology is not known Fear of being replaced	How to Use technology is not known
Managers do not agree to implement new technology due to the hustle and effort for learning new technology.	Managers think learning new technology is hustle	Lack of Agreement about Technology
Employees perceive their needs a lot of hustle and effort to adjust with new technology.	Adjustment with new technology is difficult	Technology involves too much Paperwork
One of the barriers is too much work creation via technology Employees perceive their needs a lot of hustle and effort to adjust with new technology.	Adjustment with new technology is difficult	Technology involves too much work
Sometimes employees find some loopholes in new technology to save themselves from accountability.	Employees finds loopholes for New Technology to avoid strict accountability	Misuse of Technology
Technology costs too much It causes resistance between top management to implement it. In this case, the managers focus short-term benefits resulting long term benefits ignorance.	Technology is expensive Long term benefits are ignored while focusing on short term benefits	High Cost of Technology
As technology increases accountability, employees perceive it as a threat to personal freedom.	Personal freedom and information get compromised with increased technology implementation	Technology is a Threat to Personal Information
Due to the status quo bias, majority of the employees are not ready to accept change. They find so much hustle and effort in learning new things which cause resistance Persistency on following established work processes and procedures	Not ready for change acceptance Hustle in learning new things Persistency in already established processes	Technology is different from established processes and procedures
Additional or new technological change can negatively impact teamwork and cooperation because of the implication of technology in between procedures.	Not following the accurate procedures of new technology causes negative impact Colleagues go on top position can cause rift between teams	Technology will have a negative impact on Teamwork and Cooperation
Sometimes managers or employees are not willing to accept new technology due to their experience in the past.	Fear of past bad experience	Bad Experiences with Technology in the Past

ISSN: 2278-4632
Vol-11 Issue-02 2021

It May be a hazard due to the technological mishandling resulting in permanent fear for new technology		
Top or middle managers do not bother to implement change if suggested by lower employees, resulting in a lack of support and ignorance.	Ignorance of Top management for innovation	Lack of Leadership Support for Innovation
Employees perceive that with the adoption of new technology, they have to give some extra effort and leave their comfort zone which some employees are not willing to do.	Extra effort is needed with new technology Managers do not want to do such effort	Comfort Level
Some of the employees resist to change because they must adjust with new technology. The new technology can change their hold and power in organization	New Technology can change hold of power Adjustment of employees with new technology rather than acceptance of employees with new technology	Time to make changes and Adjust
Sometimes the understanding and implementing ability of the employees are not good	Implementing ability if the employees are not good	Understanding of and Ability to Implement
Some organizations do not prefer technological change in their budget priorities	Budget priorities are not innovation friendly	Budgetary Priorities
Lack of proper organization training and resource investment creates fear of unknown Lack of training creates fear of errors Fear of employees for not being able to maintain their position because they have not learnt the new technology that well.	Lack of focus towards new technology Fear of employees about position maintenance	Difficulty/ Availability/Time for Training
Fear of position change Fear of Power change Social groups disturbance Lack of Understanding with new manager in case of reporting structure change Not being able to able to learn new things etc.	Employees fear change Perception causes barrier	Resistance to Learning New Technology
Technology creates a lot of accountability Workers must work completely according to the work protocol. These results work stress and perception of employees about overload on workspace	Accountability creates work stress Work should be completed strictly according to deadline	Work Stress/Overload

ISSN: 2278-4632
Vol-11 Issue-02 2021

Management perceives that new technology requires a lot of costs such as Cost on machinery Cost on trainings Cost on equipment Cost on resources etc. There is only focus on comparison of short-term benefits and costs Change requires long Time and benefits become visible in long term	Change requires a lot of money Resources and budget do not let organizations implement change	Cost
A new change and technology are not accepted that quickly by people, management, managers, and employees in organizations because they do not find the new change that valuable	Value of change becomes questionable People do not accept change that quickly	Proof of Value
Managers or top management show a lot of concern about the new change's reliability. About the new change's long-term benefits. Bad experience or uncertainty about new technology can create reliability like barriers	Bad experience can cause new change questionable When is there talk about change people always think until when?	Reliability – will it continue to provide value
Sometimes organizations do want to adopt new change but do not know what to do next. How they will use this change in future and benefit from it in the long term	Lack of clear view about future growth Organizations gets confused how they will continue and maintain growth with this change	Lack of Clear Scope
With new change implementation sometimes, your colleague becomes your boss or supervisor causing jealousy resulting demotivation and resistance	Technology sometimes takes a person to the top and sometimes takes away the current position Jealousy Among Employees	Sceptics in the Ranks
When people use their relationships to achieve a specific post in an organization, there exist an element called "lack of capability" which cause inability to cope with market trends and volatility.	Lack of Capability of employees People Use relations to get job or employment	Use of Relationships
When the knowledge of lean is not sufficient among employees and officials, they cannot understand its value, importance, and benefits	Lean value is not understood properly People lacks the knowledge of lean	Insufficient Knowledge of Lean

ISSN: 2278-4632
Vol-11 Issue-02 2021

Table 9 Barriers Mitigation

First Order Codes	Second Order Categories	Aggregate Dimensions
Management communicates with employees about the benefits of new technology Counsels them that they do not need to worry about their job insecurity.	Benefits of technology is being communicates Counseling of Employees Employees do not need to worry about their job	Communicate with Employees
Proper and detailed trainings are needed to train the employees from scratch. Training will bring positive results and increased efficiency.	Proper trainings should be arranged Efficiency is increased	Proper Trainings Conduction
Proper and detailed workshops should be conducted to train employees practically	Employees can be trained better with workshop conduction	Workshop
The fear of the unknown, job losing, power loss, inability to adopt new change can be hedged through employee counseling and motivation	Employees should be counseled Counseling increases motivation	Fear Hedging
If employees cannot adopt new change despite of training and workshops, they can be shifted to other units or departments	Alternatives can be used if employees are not able to learn new technology	Shift Over
Employees are given choice to choose the department or unit of their own choice for shift over to make them feel empowered and motivated	Sense of empowerment can be given to employees to avoid turnover Selection choice can be given to employees	Selection (choice of employees to choose alternative units)
Cost and budget can be planned to bring appropriate change	Planning makes thing way more clear Budget can be planned to make change feasible	Budget and Prepare for the Cost
It is not about the vast number of staff, but it is about the right people with the right qualifications. Right qualification can analyze the situation accordingly	Suitable qualification is the key to organizational success Right people can decide better	Enough Staff with the Right Qualifications
The accurate and constant flow of information is the most critical factor for efficient department functionality at the individual level Change of words while conveying a message. Sense changes when information is conveyed from one employee to another.	Information flow should be smooth in organizations That flow should be accurate	Ensuring Constant Flow of Information
If they management is not showing any interest and not understanding the benefit of the change, proof them. Proof it with	Value of Change must be proofed Proper research and facts should be presented	Proof of Value and a Clear Outline of Projected Benefits to the Business

proper facts, estimated benefits, and research		
The best way to proof the value of a new change is to quantify possible improvements expected in operations and finance	Quantification is necessary Quantify possible and expected benefits	Quality Improvements to Efficiency or Revenue

4. CONCLUSIONS

This study provides exploratory justification for the cost improvement method introduced with the lean accounting approach. The current research provides theoretical evidence regarding the benefits of the lean accounting approach. These benefits can be seen in the operational and financial sector of the organization because this approach can bring a lot of efficiency in both departments (operational and financial). Furthermore, the interviews with experts and technicians also provided some valuable insights to the implication of the whole new approach of lean accounting. Majority of the experts find this idea exciting and implementable but there are some persisting barriers identified by experts in current situation such as Technology Gap, Fear of Unemployment in workers, Status quo among employees, Fear of unknown, Reporting structure shift, Skill Gap, Lack of proper information transfer, fear of man to machine proportion, Breakage of social circle, Out of scope exposure, fear of managerial hold change, Increase of accountability factor, Unfair practice, value of technology is not known, How to apply technology is not known, how to use technology is not known, lack of agreement about technology, technology involves too much paperwork, technology creates too much work, Misuse of technology, High cost of technology, technology is a threat to personal freedom, technology is different from established work processes and procedures, technology will have a negative impact on teamwork and cooperation, Bad experiences with technology in the past, lack of leadership/support for innovation, Comfort level – effect of disruption, Time to make changes and adjust, understanding of and ability to implement, Budgetary priorities, Difficulty/availability/time for training, resistance to learning new technology, Work stress/overload, Cost, Proof of value, reliability – will it continue to provide value, Lack of Clear Scope, Weak Motivation to Change, "We don't have the money", Sceptics in the ranks, High turnover of workforce, Less personal empowerment, use of relationships, Insufficient knowledge of lean, and Insufficient management skills. However, where there is a will, there is the way. When these barriers are discussed, they can be reduced. Experts identified several mitigation strategies, including communication with employees, training, workshops, fear hedging, shift over, selection (allowing employees to choose alternative units), and making them feel empowered and motivated.

The findings indicated a strong and positive perception of industrialists regarding the impact of the lean accounting approach on operational and financial efficiency in an organization. Organizations can gain a competitive advantage by adopting this whole new approach. Of course, there are some barriers in its implications, but these barriers can be mitigated efficiently and conveniently.

REFERENCES

[1] Amusawi, E. G., Almagtome, A. H., & Shaker, A. S. (2019). Impact of Lean Accounting Information on The Financial performance of the Healthcare Institutions: A Case study. Journal of Engineering and Applied Sciences, 14(2), 399–589.

[2] Boddy, C. R. (2016). Sample size for qualitative research. Qualitative Market Research: An International Journal, 19(4), 426–432.

[3] Elsukova, T. V. (2015). Lean accounting and throughput accounting: an integrated approach. Mediterranean Journal of Social Sciences, 6(3), 83.

[4] Emiliani, B., Stec, D. J., Grasso, L., & Stodder, J. (2007). Better thinking, better results: Case study and analysis of an enterprise-wide lean transformation. Center for Lean Business Management.

[5] Enoch, O. K. (2013). Lean Accounting and Lean business philosophy in Nigeria: An exploratory research. International Journal of Economics, Finance and Management.

[6] Groenewald, T. (2004). A phenomenological research design illustrated. International Journal of Qualitative Methods, 3(1), 42–55.

[7] Kennedy, F. A., & Brewer, P. C. (2006). The lean enterprise and traditional accounting—Is the honeymoon over? Journal of Corporate Accounting & Finance, 17(6), 63–74.

[8] Kennedy, F. A., & Widener, S. K. (2008). A control framework: Insights from evidence on lean accounting. Management Accounting Research, 19(4), 301–323.

[9] Kumar, M. (2010). Six sigma implementation in UK manufacturing SMEs: an exploratory research. University of Strathclyde.

[10] *MAJEED, MK, JUN, JC, Muhammad, ZUR, MOHSIN, M., & RAFIQ, MZ (2020). The Board Size and Board Composition Impact on Financial Performance: An Evidence from the Pakistani and Chinese's Listed Banking Sector. The Journal of Asian Finance, Economics and Business (JAFEB)*, *7*(4), 81-95.

[11] Maskell, B. H., & Kennedy, F. A. (2007). Why do we need lean accounting and how does it work? Journal of Corporate Accounting & Finance, 18(3), 59–73.

[12] Mohsin, M., Naseem, S., Muneer, D. S., & Salamat, S. (2019). The Volatility of Exchange Rate Using GARCH Type Models with Normal Distribution: Evidence from Pakistan. *Pacific Business Review International*, *11*(12), 124-129, http://www.pbr.co.in/.

[13] Mohsin, M., Naiwen, L., Zia-UR-Rehman, M., Naseem, S., & Baig, S. A. (2020b). The volatility of bank stock prices and macroeconomic fundamentals in the Pakistani context: an application of GARCH and EGARCH models. Oeconomia Copernicana, 11(4), 609-636.

[14] Mohsin, M., Naseem, S., Zia-ur-Rehman, M., Baig, S. A., & Salamat, S. (2020a). The crypto- trade volume, GDP, energy use, and environmental degradation sustainability: An analysis of the top 20 crypto-trader countries. International Journal of Finance & Economics.

[15] Morse, J. M. (1995). The significance of saturation. Sage Publications Sage CA: Thousand Oaks, CA.

[16] Naseem, S., Fu, G. L., ThaiLan, V., Mohsin, M., & Zia-Ur-Rehman, M. (2019). Macroeconomic variables and the Pakistan stock market: exploring long and short run relationship. *Pacific Business Review International*, *11*(7), 621-72.

[17] Naseem, S., Fu, G. L., Mohsin, M., Rehman, M. Z. U., & Baig, S. A. (2020a). Semi-Quantitative Environmental Impact Assessment of Khewra Salt Mine of Pakistan: an Application of Mathematical Approach of Environmental Sustainability. *Mining, Metallurgy & Exploration*, 37, 1185-1196.

[18] NASEEM, S., FU, G. L., MOHSIN, M., AUNJAM, M. S., RAFIQ, M. Z., JAMIL, K., (2020b). Development of an inexpensive functional textile product by applyin accounting cost benefit analysis. industria textila, 71(1), 17-22. DOI: 10.35530/IT.071.01.1692

[19] Naseem, S., Mohsin, M., Hui, W., Liyan, G., & Penglai, K. (2021). The Investor Psychology and Stock Market Behavior During the Initial Era of COVID-19: A Study of China, Japan, and the United States. Frontiers in Psychology, 12, 16.

ISSN: 2278-4632
Vol-11 Issue-02 2021

[20] Naseem , S., fu, G. l., Mohsin, M., Rehman, M. Z.-u., & Baig, S. A. (2018). Volatility of pakistan stock market: A comparison of Garch type models with five distribution. *Amazonia Investiga*, *7*(17), 486-504, http://www.udla.edu.co/revistas/index.php/amazonia.

[21] Salamat, S., Lixia, N., Naseem, S., Mohsin, M., Zia-ur-Rehman, M., & Baig, S. A. (2020). Modeling cryptocurrencies volatility using GARCH models: a comparison based on Normal and Student's T-Error distribution. Entrepreneurship and Sustainability Issues, 7(3), 1580-1596

[22] Soliman, M. (2020). Lean Accounting VS Financial Management: Awareness and Overview. Available at SSRN 3534862.

[23] Teixeira, H. F., dos Santos, N. M. B. F., Akkari, A. C. S., & Munhoz, I. P. (2019). Lean Accounting: Economic-financial Performance of Companies with Lean Manufacturing. International Journal of Advanced Engineering Research and Science, 6(5).

[24] W Creswell, J. (2016). Research Design.: Qualitative, Quantitative, Mixed Methods Approaches. University of Nebraska-Lincoln.