Chapter -10

RESULTS,
CONCLUSION AND
SCOPE FOR FUTURE
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With the overall theme of the complete research problem the real idea of the clear picture of the results, conclusion and scope for the future work could be described has follows

Beginning of research problem identification process explain, proceed the nature of problem justification and corresponding solutions step by step procedure described neatly in future coming chapters. The importance of the value stream mapping, shop floor activities, nature of work cell are real basic eventual objects of the Visual Shop Floor Control systems.

The later stage of the research describes the characteristics features of the Kanban System, various types of Kanban cards, design specification of kanban scheduling system, Value Stream map analysis, simulation methods involvement and finally the properties of the Kanban calculator design aspects.

The sequential approach of the developed work briefly gives the contribution approach of the whole set of programming to complete design of value stream map, analysis and the real status of various time complexities with the concerned result have been described briefly. The programming and the result analysis resembles the future design aspects for the complete research problem.

The level of programming briefly gives the contribution approach of the whole set of programming to complete design of value stream map, analysis and the real status of the various time complexities concerned result have been described briefly. This will be the very important related information required for the shop floor information management system.

The later stage of the work contribution presents the objectives of the regular activities of the shop floor management in the graphical user interface face by face. The APIs of the graphical paradigm leads the forecasting techniques to be effective in the implementation.
operations of the shop floor effectively. The final event of the carried work provides the structure oriented and quality control approach of the virtual factory information system. The concise measure of this particular components are very essential for the mathematical analysis of the kanban various strategies.

The further developed work clearly explains the working conditions of lean operations through the computations of takt time analysis. The real evaluation of the Lean manufacturing based on the computations of the takt time. This computation with various steps provides the regular interactive motivation for the next processing activities of the kanban scheduling system.

With the above issues of the takt time analysis the latest information of the contributed work provides the actual programming operations would be analysed in significant in nature for the further improvement of the shop floor. Hence the work has been designed VKSS (Visual Kanban Scheduling System) for the shop floor activities for improving in control, coordination and communication with in all areas of the industries. Estimation of Kanban cards, efficiency of the visual control systems had been described as usual for the further improvement of the futuristic components. This particular activity is the essential scope rules for the graphical analysis for the kanban various methods with work in process.

The considerable useful objectives of the visual kanban scheduling system further describes the different Kanban Strategies and the real time scope of the Work In Process while analyzing the time complexity with different options. The randomize comparison of the different methods of the kanban Size calculations motivate the real objective of this thesis. Time analyses of the Value Stream Mapping further enhance the visual control system services in future usage.

The overall contributed work would present the whole programming mode of operations of the kanban calculator. The global economic futuristic events further describe the efficiency of the concluding process events. These techniques are optimization total.
resources (OTR) helpful for the real mode of an operation in most of the Industrial Applications of production technology. The user-friendly options are highly programmable in nature of industrial activities. One way this will simulate the real-time objective analysis of the whole set of programming in shop floor control system.

The final approach of the work done provides the mathematical approach model for the automated industry using queue model simulation techniques. The job shop model depicts the simulation programming features using high-level programming language. With a single server of many jobs finds the arrival and departure criteria of the complete standard design of programming. This would depict the adequate building models for the simulation model analysis for the automated industry. Discuss the graphical results analysis of the various aspects of job shop. Present contribution of the working environment only up to, single server. This can be further extended for multiple level servers.

This thesis is concluded with the closing remarks suggesting that Internet enable automated computerized manufacturing system with all options and features in a wide range of applications. The emerging area are real approach in the automated manufacturing environment right form of the word wide web, internet, intranet having standard architecture with specific infrastructure provide an excellent futuristic services to the effective problem of any global successful industry. Few of the computations like KANBAN Calculators, Shop Floor techniques depict their valuable strength to achieve the viable goals of the whole research problem. The future work to be proposed as, “Web Enabled kanban System”. Currently this work has been carried out using Visual Basic on MS windows. This may extend to its additional futuristic parameters, according to industry requirements in other platform.

Shop floor management systems are essentially a database tracking system, which provides statistical information to manage. The shop floor management system has been becoming more useful due to its many outstanding features like:
1 Touch screen and bar code 2 Work order inquiry 3 Multiple jobs and multiple parts 4 Labor assignment and job tickets 5 Real time and production reporting

Shop floor management system is a user friendly in which way managers and supervisors to layout manufacturing and production information. It also enables the customer to focus mainly on their needs than focusing on authority behind the work. Thus shop floor system serves to both the customer and the manager.

Shop floor management system have been becoming increasingly more affordable. It is more a necessity than an option because the system like these emphasizes on process as well as on structure by using different managing techniques and tools. The shop floor is considered as a place where people can add value to the society and strengthen its foundation. Ultimately shop floor management system could be defined as “a team than goes the distance”.

Collected information may be recognized, compared statistically to historical data, and provide management with an accurate assessment of near real-time status of their manufacturing operation. The complete contributed work of this thesis results have mentioned in Appendix - 1, Appendix - 2a, Appendix - 2b and Appendix - 3 in different screen shots using VB programming and C programming.

The Kanban system is one of major means to realize the philosophy of just-in-time (JIT) manufacturing to produce or retrieve required amounts of necessary items at the right time. With the scope of existing kanban systems and present strategy difficult to estimated the actual amount of production required and would have resulted in bulk production that would lead to wastage of the goods produced. Even though development of the work and implemented technological events are likely to be very delay in approach for the industry scope, but new distributed manufacturing environment positively look for the best one.

In this thesis the work considered to be for the simple small amount of data to implement six sigma based on the quality control of industry demands. This can be extended to large number of data set. Here consideration is the random values. But it can possible to implement the project for actual measured values. Can improve the charts, graphs and by
the other diagrams. It can also include Brainstorming methods to improve the quality of product. Collecting the customer needs in query form questions directly and by online surveys.

The development of shop floor teams or mini-companies has proven to be overwhelmingly successful generating outstanding results for companies, customers and employees.

In today's economy, profit margins are increased by reducing the manufacturing costs. Lean Manufacturing [84] is a technique that helps in reducing wastes by cost reduction and producing to customer order, is a highly effective means for doing this. It emphasizes on reducing manufacturing costs by improving the process and the utilization of labor to eliminate waste. Producing to customer order also helps drastically in reductions in inventory.

The scope of this thesis research work to be proposed according to the Global system demands as Internet Enabled or “Web Enabled kanban System”. With the various parameters and characteristics features of the automated industry requirements, this setup can be made in standard representation of an Industry demands. According to futuristic action plan of the different Architecture and Topologies which can be easily, efficiently implement in Distributed Networking Applications. Main objectives of this thesis work can be extending in different object oriented programming in wider range of applications with numbers of nodes in the distributed Client / Server architecture.