INFORMATION SYSTEMS AUDIT AND MANAGEMENT

FINAL REPORT ON

INFORMATION SYSTEMS IN FASHION AND APPAREL INDUSTRY

Muhammad Hassan 24866

Table of contents

REPORT 1: Information technology, cross-channel capabilities, and managerial actions: Evidence from the apparel industry

INTRODUCTION:

This report emphasises on the importance and impact of information technology, cross channel capabilities on the enterprise itself as well as on the managerial actions, in respect to the apparel industries. One of the purposes of this research is to examine how cross-channel capabilities are created. Although Omni channel service has emerged as a key strategic issue for most retailers, there are many technology-related obstacles and misalignments with customer expectation. To develop capabilities, companies first have to make strategic investments in supporting infrastructure that links together – investments transcending traditional business units and functions. RBV researchers argue that capabilities are usually information-based and involve developing, carrying, and exchanging information through different functional groups and employees. Cross-channel capabilities are no exception; they rely on IT and require seamless information sharing between physical and online stores. IT systems enable and automate online purchase and order fulfilment processes, the foundation of cross-channel operations. Moreover, retailers rely on IT systems to design and transform business processes, such as cross-channel order fulfilment and customer relationship management.

Hypothesis 1: Firms with more enterprise IT applications develop stronger cross-channel capabilities.

Hypothesis 2: The relationship between enterprise IT applications and cross-channel capabilities is stronger when organizational financial resources are abundant rather than when organizational financial resources are scarce.

Hypothesis 3: Firms investing in a more balanced IT-application portfolio develop stronger cross-channel capabilities

Hypothesis 4: Enterprise IT applications help increase firms' total number of managerial actions, action repertoire complexity, and action heterogeneity.

Hypothesis 5: Enterprise IT applications help mitigate the negative effect of firm size on firms' managerial actions

Hypothesis 6: Cross-channel capabilities help increase firm's total number of managerial actions, action repertoire complexity, and action heterogeneity.

Cross-Channel Capabilities:

Cross-channel capabilities represent a firm's capability to carry out commerce, fulfilment, and customer service across multiple channels. A retailer's cross-channel capabilities largely depend on the coordination of different business units, we operationalize cross-channel capabilities with the following functional areas:

- ➢ The retailer has a website to provide company and product information.
- ➢ The retailer has an online store that conducts transactions.
- ➢ Customers can order online and return goods to physical stores.
- ➢ The retailer has in-store kiosks or other systems that allow online ordering and searching.
- ➢ The retailer allows online orders and in-store pick up.
- ➢ The retailer does product and price coordination among channels.
- ➢ The retailer conducts joint-channel promotions.

RESULTS:

This research is one of the first attempts to empirically study the relationship between IT applications, cross channel capabilities, and firm managerial actions. The results provide insightful implications to managers in the apparel and other retail industries that are looking to leverage the Internet channel for better service and increased customer value. The research also contributes to the literature by examining how IT resources create business value. Prior literature in IT business value often uses aggregate measures of firm performance as dependent variables. They have examined the impact of IT applications via an intermediate business process. This helps to understand how IT creates organizational capabilities and affects managerial actions, which can lead to competitive advantages. The findings of our study provide actionable guidance for managers to develop strategies and to make decisions on how to invest in IT and how to combine IT with other organizational resources. Third, this study investigates the impact of a firm's IT resources and IT-related capabilities on competitive activities. We find that IT applications are important resources that not only increase the frequency of actions, but also broaden the types of actions. While market-oriented capabilities such as e-commerce and multi-channel cross-selling capabilities broaden the range of managerial actions, operation-

oriented capabilities such as cross-channel fulfilment could narrow a firm's managerial action range.

REPORT 2 : The impact of IT on decision structure and firm performance: evidence from the textile and apparel industry!

Clarifying the relationships between information technology (IT), organizational performance, and decision structure remains an important area of inquiry in IS research. The study examines these associations among firms operating in the US-based apparel and textile industry from 1992 to 1997. Based on data gathered from 50 public firms located across the USA, the study finds that IT used to enhance internal communication supports a decentralized decision structure, which in turn is associated with higher financial performance. Hence, IT exhibits an indirect performance effect. However, use of IT to enhance communication is also found to have a direct performance effect in large organizations. This paper proposes that use of communication enhancing IT can support organizational learning processes by facilitating flexible exchange of skills and knowledge across functional areas.

REPORT 3 : Information Technology disrupting the apparel industry

INTRODUCTION AND BACKGROUND OF REPORT:

Fast Fashion created a need to change the working models of garment manufacturing. The demand for better quality with reduced time and cost required another approach for the manufacturing of garments. This need was soon filled by the technology suppliers helping manufacturers to deliver the desired demand of their buyers while improving their profit margins. IT and other technologies played a huge role in transforming the traditional manufacturing processes to newer ways. The leading suppliers of technologies like US, Germany and France apart from a few Indian suppliers like Simbus, Udityatech are bringing in a change in the industry with their solutions.

"Apparel manufacturers are under severe pressure in the hyper-competitive market environment. Apart from the cost pressures, the manufacturers are also under pressure from their customers to offer a significant differentiation to ensure that their share of business is maintained. The key differentiators for manufacturers are quick turnaround/shorter lead times, on time delivery performance, competitive cost and product innovation. 3D design and virtual sampling can also help manufacturers stay ahead of the game by delivering

significant value," said Krishna Kumar, Founder & MD, Simbus Technologies Pvt. Ltd.

THE INFORMATION SYSTEMS AND OTHER TECHNOLOGIES USED:

Simbus company's Browzwear 3D Apparel Design Suite is a SaaS platform that allows manufacturers with realistic 3D prototyping while allowing the team to work in collaboration. The cloud-based system allows the data to be made available for everyone in the team and as well as external team (buyers).

The technology comes with different features that ease out the whole process for them. Browzwear design tool (Lotta) and its tightly coupled patternmaking and simulation solution (V-Stitcher) are joined by Stylezone, a SaaS platform that helps in better communication and collaboration and a solution for outputting a limited set of manufacturing instructions intended for factories.

The easy and simplified interface lets the users quickly learn and use the tool without extensive training. The system also allows easy navigation between 3D and 2D styling to add precision to fashion design. It comes with an inbuilt tech pack creator allowing quick generation of tech packs for design and proto sampling.

REPORT 4 : The use of fuzzy logic techniques to improve decision making in apparel supply chains.

Abstract

In this chapter, the focus is on exploring the uncertainty problem generated by the human perception of fashion design in apparel supply chain systems. Discussions on an experimental methodology based on fuzzy logic techniques for optimizing the decision support from product development to target market are presented. As an industrial application, an intelligent fashion recommender system is proposed, which can be used to help select the most relevant garment design scheme for a specific consumer in order to support proper target market selection for fashion mass customization.

Fuzzy logic techniques

Human perception, including expert knowledge and consumer cognition, is often conceptual and ambiguous, which is difficult to characterize using classic computational tools such as statistics. In this context, fuzzy logic techniques will be more efficient for formalizing perceptual data, relations between concepts,

and other uncertain problems in the design process. **Three computational tools (fuzzy sets theory, decision tree, fuzzy cognitive map)** are generally applied in the uncertainty study of human perception in apparel industry.

REPORT 5: Information technology and textile industry.

Today, Information technology (IT) plays a vital role in the field of textile industry. Any manufacturing unit employs four Ms that is, Men, Material, Machine and of course Money. To get organizational success, managers need to focus on synchronizing all these factors and developing synergies with in and outside organizational operations. With the increased competition, companies are taking support of IT to enhance its Supply Chain Management (SCM) and using it as a competitive edge. In short, many textile companies are leveraging the technological power to adding value to their business.

The need for IT systems and support in textile industry?

- **Lack of information on demand and supply aspects :** Excess inventory is one of the most common problems faced by managers which further results in long cycle-time, outdated stock, poor sale, low rates, and reduction in order visibility and finally leads to customer dissatisfaction.

- **Long procurement time:** In a traditional textile industry, procurement process takes a much longer time.

- **Supply chain incompetency:** With the urge for getting global, apparel and textiles are facing hurdles of inefficiency in carrying out various processes involved right from designing, developing samples, getting approval, manufacturing, dispatching to payment procedures.

Incorporating IT systems and support in the textile industry:

- **Supports planning and execution operations:** Various software tools like MRP, MRP-II, APSS facilitates planning and coordination between different functional areas within the organization.

Material Requirements Planning (MRP): It helps in managing manufacturing processes based on production planning and inventory control system. Proper implementation of MRP ensures availability of material for production and product for consumption at right time optimizes the level of inventory and helps in scheduling various activities. MRP system uses computer databases to store lead times and order quantity.

- **Coordination of logistic flows:** IT contributes towards the maximizing the value of textile supply chain through integrating supply chain operations within and outside the organization and collaborating the acts of vendors and customers based on shared forecasts. Internet adds to IT contribution towards supply chain management through coordination, integration and even automation of critical business processes. New system of the supply chain game emerges as a result of business innovation fuelled by the Internet.

REPORT 6: Management Information Systems in tailoring industry.

Computers have been used in the clothing industry since the earliest introduction of IT. In those days only the very large tailoring companies had the resource to take up this technology. They used them mainly for business data processing. During this decade, the textile industry has progressively taken up computerisation. The application of computers is wide ranging covering almost all activities necessary to run a textile business: accounting and transaction processing, sales and marketing, production planning, computer-aided management, real-time management etc. Over time the nature of computer systems in their implementation has taken several forms: standalone applications based on one computer; an integrated centralized system where one large computer handles a range of applications; applications catered for by having ones data processing distributed over a network of computers.

A lot of clothing companies continued to invest not only in very latest production technology, but also in design technology and computer systems. They use computers complete with Intranet so that a lot of people working on PCs throughout the group could access and work with data on the main computer. MIS in clothing companies should include the control of the stock, processing of each individual order, accounting etc. Most of the tailoring enterprises have a web site and in this way e-commerce is widening. Ecommerce offers a unique

opportunity for economic growth, to improve industry's competitiveness and to stimulate investment in innovation and the creation of new jobs.

Commercial communications are an essential part of most electronic commerce services. Electronic commerce is global and requires increased international coordination. Its implementation opens not only new markets, but it also changes the way in which business is made. E-commerce over the World Wide Web is growing at an astronomical pace. Many of the top e-commerce sites report revenue growth exceeding 100 percent per year. Electronic commerce will allow the companies of tailoring industry to compete on the worlds scene, regardless their geographic situation.
The effect of the use of modern IT might have many fold: higher efficiency, increased productivity, optimized processes, enhanced quality control and thus improved products; better design; lower cost and shorter lead times.

The development of the IT and the process of globalization usually has direct influence on the labour market and leads to the appearance of new flexible tailoring companies. The implementation of modern MIS improves the production process in the enterprise and changes the relationship between managers and their subordinate.

Conclusion

Computers and MISs are one of the important organisational resources for the firms of clothing industry. The tailoring companies should spend a huge amount of money for buying, development and maintenance of such systems. A great number of enterprises could not operate properly and successfully without the implementation of MISs in the new changing environment. The modern IT will become the main force determining the pattern of the 21-st century and giving great opportunities in all spheres of our life. MIS9s have great contribution to increased competitiveness and effectiveness of managers in decision-making process and solving of different problems which appeared in managing an organisation

REPORT 7 : Information systems in retail and fashion: Zara

Key processes and Information System's contribution

The important processes are:

- Ordering: is done based on current market trends and customer feedbacks.
- Designing: based on the orders given.
- Manufacturing: After manufacturing the clothes are sent to the distribution centres.
- Distribution: From the distribution centres the garments are sent to the stores.

Improvement of process using IT:

- It saves lot of time
- Handwork is reduced
- Information flow being made easier
- Information is kept in the computer database

Information Systems and Information Technology

Unlike other companies have to spend large amount of money to gain advantages from Information Technology and then pay more money to maintain it, Inditex invests very little on Information System which is referred to simple Technologies "Application at Inditex are written and maintained by an IT staff of 50, which accounts for less than 0.5% of the company's workforce" (McAfee, A 2004).

- Part of Zara's Information System focuses on the communication between its retailer's stores and the head-quarter in La Coruña. Every store of Zara is equipped with the PDAs and DOS based point-of-sales (POS) software so that every order from customer will transfer directly to the head-quarter for analysis purposes. This system is also used for collecting customer comments and opinions on styles and design thus will be used to support the design team to provide exactly products that meet the real-time needs of market's demand.
- Another use of Information System in Zara is that the store's manager can order goods concerned to quantitative and design which they think will sell best for their local markets. However, this information transferring process is not using more complex technology than dial-up internet to transmit the information twice a week.
- Also, based on the Annual Report for Stakeholders (2007) Inditex mentioned the implementation of Store Management Terminal (SMT) at every store to strengthen the communication within store, warehouse and management department.

- Another recent implementation of Information System is the Internet Store (www.ZaraHome.com) which is brought out as receiving online orders and feedbacks from customers.
- Besides that, computer aided design and computer aided manufacturing (CAD/CAM) that converts designs into tangible products. Designers use the CAD/CAM to quickly make the final products based on customer's demands.

Role of Information System and Information Technology

One of the particular characteristic, known as a unique and a pioneer, of Zara is reduced time in whole process from customers' demands to shipping fulfilled products to stores, supply chain. Like fashion shows in Paris, Zara uses this fashion to draw the designs, transmit these designs to Spain, and finalise them within 15 days; whereas, this process takes about six weeks for other competitors do, according to Folpe (2000). One of the methods of reducing lead time is the implementation of Information Technology

Zara staffs have to use Information System in this process:

1. Computer hardware and software are used to design and store design patterns.
2. Computers and internet are used to transmit these designs to Spain.
3. Computers and internet are used to communicate; emails, VoIP, video conferences.
4. Information Technology is used to monitor, manage, and process whole process of making products.

- The robotic system in factory is used to cut fabrics, software or program is used to control robot in terms of cutting fabrics, printing image on products, packing clothes, and controlling conveyer belts as well.
- Information system is also used to communicate with suppliers where to get materials, with divisions of operation inside the factory to run whole process effectively and efficiently, and with distributors for shipping as well.
- As part of the important processes. Recording feedbacks from customers is crucial. And it has been strengthened by the implementation of Information Technology.
-

REPORT 8: Crossing the management fashion border: The adoption of business process reengineering services by management consultants offering total quality management services in the United States

Building on prior research on management fashion, this paper seeks to understand how management consultants respond to the boom-to-bust cycles of competing management fashion trends. Specifically, we examine how US management consulting firms offering total quality management (TQM) services responded to the rise and fall of the rival management practice, business process reengineering (BPR), with an empirical focus on the adoption of BPR services. We find that a consulting firm offering TQM services was more likely to adopt BPR services if the firm's organizational capabilities and institutional environments were more connected to BPR's principles than to TQM's principles. This suggests that management fashions are not simply bandwagon phenomena, but involve resource- and identity-based decision making. We also find that the significance of organizational capabilities increased while that of network influences decreased as BPR's boom turned to bust. The reversal of well-established institutional accounts of innovation diffusion is explained by reference to the characteristics of management fashion.

TQM and Business Process Reengineering: Although TQM grew out of a broad range of quality efforts, three leading quality gurus were particularly influential in the early shaping of TQM principles: Philip Crosby, Edward Deming, and Joseph Juran, who respectively defined quality as conformance to product and customer requirements, continuous improvement of a stable system, and fitness for use. Lamenting the increasing performance gap between the United States and Japanese firms, they introduced the concept of quality into the American business community. In a series of publications and interviews they attributed the Japanese firms' remarkable success to their excellent quality programs and unique human resource practices, and developed such ideas as quantitative measures, continuous improvement, customer-driven standards, empowerment, and situational analysis. Soon afterwards, the fever for quality began to spread and the focus of management discourse shifted from productivity and efficiency to quality and customer demand.

Big organizations and public agencies such as the Big Three automakers (Ford, GM, and Chrysler), Dow Chemical, the Department of Defense, NASA, and IRS made great contributions to the early diffusion of the quality movement. Not only did they implement quality programs, they also requested their suppliers to adopt effective quality programs. As quality efforts cascaded down the supply chains, the need arose for umbrella principles to evaluate various quality programs. As a response, the US Department of Commerce and the White House

created the Malcolm Baldridge National Quality Award in 1987. The companies awarded the Baldridge such as Motorola, IBM, and Xerox soon became the reference models for benchmarking. With the diffusion of these award winners' quality practices, a variety of quality programs rapidly crystallized into a standard quality management practice, TQM.

REPORT 9: Product data management- empowering small scale industries!

The garment and apparel industries, whether of small or large scale, worldwide face the pressure of adapting to the changing markets, and consumer trends from time to time. Manufacturing in time, to meet the fluctuating and speedy demands, requires a sophisticated and organized system that provides timely solutions. Producers today have a host of different software systems to choose from, like Product Lifecycle Management (PLM), Enterprise Resource Management (ERP), and Supply Chain Management (SCM) to name a few. But these solutions have so far been limited to and procured by large scale industries. Product Data Management (PDM) is developed keeping in mind small textile companies and their requirements. Software like this gives them a competitive edge and help remove bottlenecks pertaining to product data management. The process of product development requires recording and communicating details of a particular garment to members involved in it. The traditional paper based method of procuring data is time-consuming and prone to errors. Retrieving and sharing information by the conventional means lacks efficiency and are not cost effective. Product management software is what comes handy and simplifies the otherwise complex procedure. The Product Data Management software (PDM) provides just that and much more.

PDM serves as a centralized system of database that provides clarity and simplicity. It promotes the synthesis and exchange of data among users who have authorized access to it. Since every department is allocated different tasks and is involved in different functions, PDM software allows users to update information pertaining to their work, and responsibilities regularly, which in turn can be used by others to smoothen the manufacturing process. Hence any form

of information recorded, created, or re-used helps to perform the production efficiently. Any input on a product, adds value and links the system to diverse users like the CAD (Computer Aided Designing) team, production managers, and designers to work with the latest data. The PDM software provides minute details of product development like requirements, supplier datasheets, test results, inspection details, and technical design specifics.

The key functions implemented by standard PDM software are as follows: electronic data library for CAD, design documentation identification and control, supplier source records, bills of materials management, lab dips, and physical part attributes records. Advanced versions of the PDM software can work with CAD software for innovative designing, grading, and marking purposes.

REPORT 10: Successful ERP Implementation for Fashion & Retail Companies

ERP stands for Enterprise Resource Planning, one of the most important and vital aspect of any business whether it is used in fashion, apparel or automobiles. ERP system is very helpful and worth full for any industry so as for fashion, and using it for the better cause and to implement on the behalf to fulfil their needs. ERP can't be implemented well enough in the non-tech sectors. Hence, Fashion industry must have to cater it well.

Listed below are the eight steps to a successful ERP in Fashion and retail companies.

1. **Selecting the right vendor**

Selecting your vendor for the fashion industry is the key step to be successful. Things fashion industry needs to know that the vendor that you've chosen is relatively belong from a fashion industry. There should be less complexity in the ERP system, so as easy to use, customizable and ultimately be less costly.

Vendor should be able to answer your question which creates the modification and good interaction with the customers.

2. **Choosing the best and perfect implementation and training partner.**

Industry must have an ideal partner and it can be in the shape of vendor. Who knows that how to, when to and why to use ERP system. Make sure that you shouldn't go for external ERP team which would definitely be costly so as time consuming. Moreover, outside ERP team doesn't know your business and doesn't have relevant experience of new ERP system. And think what if the outsider ERP team doesn't have the fashion background?

3. **Incorporate change within organization in terms of culture.**

A leader has to play an important role while during in all changes, such as; he has to know who is uncomfortable with the change of system and introducing new ERP system. And then he has to cater things by his intelligence so as make sure that the person who is affected should embraced this system easily and quickly.

4. **Data Cleansing**

Before implementing data should be cleaned and distributed which is mandatory. Industry should see how data is entered and subsequently spelled, coded, addressed. Delete inactive client accounts and make sure that how long the product is kept and recorded and evaluated.

5. **Assigning the right ERP Team AND Testing**

The group ought to have the option to deliberately design changes to the organization while planning for its future development. The in-house ERP execution group will ordinarily include a leader individual from senior administration who will lead the undertaking; a task director that will build up the project and keep up timetables and spending plan; an IT administrator liable for organizing the cycles between the organization and the ERP merchant; and the client group who satisfy any remaining spaces like deals, money, producing, and so on. Framing a skilful, balanced gathering can make the ERP testing measure consistent since they can imagine significant situations and expect snags.

6. Training and Adapting and Analysing Success.

Successful ERP system is based upon the start and the end of system how well you've performed and cater.

Give sufficient opportunity to preparing. End clients' preparation will, usually, happen during the last phases of ERP execution; that period will likewise presumably be burdening and exceptionally constrained. It is significant, notwithstanding, that preparation is focused on close by the execution cycle, also typical day by day assignments. Measure solid numbers, numbers are perhaps the least demanding boundary to quantify; these incorporate clear income increment and cost investment funds, for instance. Screen KPIs. Notice creation times, conveyance, and consumer loyalty for unmistakable measurements to record. Qualify dynamic advantages.

REPORT 11: Internal Audit Of Garments Manufacturing Industry:

Starting an own business can be an easy task, but to retain it can be difficult and to know the incoming and outgoing in business makes it more difficult and successful.

The check and balance in business sometimes an audit annually, the internal audit or the first party audit to check and to improve the work and efficiency by adapting some changes that aren't in favour. In garment industry they do this too and these are

- For technicality and quality check the Internal QMS
- Audit for compliance
- Audit for finance
- Audit for ISO

These all are internal audit

The one quality to check the work is on time? Has completed the work on time? The manufactured item is up to the requirements? The raw material is used effectively? Hence this part is more related to quality and assurance in supply chain

To check the due date, the inspection of workers, training and work performance measurement

To check the overall budgeting and cost, simply calculating the expenses to have final cost and revenue to check the standard and work performance.

QMS

The QMS is communicated as the authoritative design, approaches, techniques, cycles and assets expected to carry out and keep an excellent presentation. In the clothing business, the cycle takes on numerous viewpoints.

Audit of Compliance

Compliance implies congruity of certain norm. Each material industry ought to keep a moderate working condition for their representatives. Albeit the whole grounded project attempt to keep up well consistence however there are some missing of legitimate consistence issues.

Internal Audit Finance

The internal audit works from the inside, filling in as guard dogs over your association's respectability and responsibility, examining your monetary revealing, guarding against extortion, blunders, and hazards and giving target affirmation that your element is observing the guidelines and norms that it ought to.

Internal audit of ISO

Placing these areas into a worksheet design gives inspectors a manual for follow, to guarantee the significant connections are reviewed. Great inspectors acknowledge from the beginning that they are managing characters as much as cycles and frameworks.

REPORT 12: Impact of Information Technology In Garment Industry:

The work can be done in seconds now a days that is only possible because of information technology, the technology that helps the individual to get work on time in an easier way and

now business are also using the information technology, such as the garment industry, the main reason of using IT in garment industry is to maintain the harmony of work, and to create a good image in market globally. With the help of IT mostly garment industry runs their supply chain, so the production will be on time. The scheduling must be accurate and immediate. Not only to supply chain but gain more customer base through e commerce is one of the major benefit of IT, sales can be enhanced too.

- IT can help to predict the supply and demand
- Helps in designing the design. Customization
- Promotions can be done virtually.

Enhancing the process of human resource and management can be done easily.

A lack of satisfactory information insurance systems for labourer's has prompted situations in which rights struggle with one another and entertainers have needed to figure out which right should win. In any event, when entertainers look for the most altruistic utilization of information, the reliance on prescribed procedures by purchasers, providers, and innovation suppliers consistently puts labourers' privileges in danger of infringement.

REPORT 13: ERP Issue AND America Case Study:

ERP the system to manage the process of business is now available in fashion industry, the word ERP is enterprise resource planning, a software used in different modules of business such as to manage sales, finance or operations and having centralized information and the data based is saved till end. ERP in fashion industry has provided the huge scale of benefits but as coin has two sides so the ERP have some colloidal effects too. The industry is wide and more on custom order so the data of order is huge, such as having different sizes and colors and different styles. So software must be easily handle the all manufactured orders and those who are ready to sell, then the customization or vertical solution came, it is simply as tailoring, the ERP can help business to run in harmony to get more efficiency and productivity.

REPORT 14: The Role of Information Technology in Garment Industry

Characterizing the Role of IT IN Garment Industry Like the other modern areas, Garment industry has separate IT offices that deal with the production network. This well informed division conveys the truly necessary edge to an association. Large numbers of the organizations are utilizing the innovative ability to enhance their business.

One ongoing case occurred in an organization, a MNC testing Lab. The worker quit performing because of some specialized issue. What next, no one ready to manage their work, it just became halt. No new position can be made; no report can be seen, no yield. Accordingly responsibility accumulated for everyone.

IT isn't just significant apparatuses however fundamental for the doing the business. Where we need ongoing information/data we can't think anything without IT application. Followings are not many names of IT devices those are in piece of clothing industry.

Today data innovation (IT) turns into a basic piece of the Garment Industry.

From representative participation (checking in) to shipment dispatching is subject to data innovation.

The decision of innovation additionally relies upon what they plan to accomplish. On the off chance that a brand needs to give clients more data about the excursion of the article of clothing or give them alternatives on the most proficient method to draw in with circularity or reusing, they should carry out an advanced trigger like QR or NFC in light of the fact that RFID isn't check capable by clients.

An ERP covers the entirety of the positions done by different divisions. All imported buying is done through ERP frameworks and Recently numerous purchasers pushed provider to refresh procedure on their EPR with the goal that purchaser can get to the situation with their orders sitting in the country office regular.

Computer aided design/CAM frameworks for design making, plotting and so forth
Mechanized cutting machine
Online FIT endorsement,
ERP for stock following, creation the executives,
Mailing arrangement,
Planning of MIS reports
Voice visiting,
Self-loader and completely programmed sewing machines and
Constant correspondence with purchaser through online arrangements like Skype.
PLM programming

Today data innovation (IT) turns into a basic piece of the Garment Industry.
From representative participation (checking in) to shipment dispatching is subject to data innovation.

Report 15: Paradigm shift in information systems auditing

Objective: The objective of this work is to identify the factors that are keep changing in the information system auditing processes and to provide insights to

the practitioners and managers about the future of information system auditing. This study mainly focuses on United Arab Emirates auditing systems.

Methods: The authors initially identified some change factors by reviewing the literature and experience of other. On the basis of those, they prepared a questionnaire to validate the identified factors. The questionnaire was filled by 62 practitioners in the field within UAE.

Results: The authors concluded that the information system auditors play less role in applications and infrastructure and is strengthening in the area of IT management. Therefore, practitioners should focus on improving the IT management audits and invest resources to build IS audit systems rather than investing in application and infrastructure audits.

Report 16: Financial auditing and surveys: how are financial auditors using information technology?: an approach using expert interviews

Objective: For Internal auditors using computer assisted software for auditing is difficult task. The reason is use of complex mathematical, statistical and information systems techniques in creating those software. So, this study aims to understand how the financial auditors actually use information systems in auditing processes.

Method: An in-depth interviews were conducted with financial auditors group.

Conclusion: The data collected through interview is open-ended and is not included fully in this study but we realised that computer aided tools and techniques are recommend to use in auditing tests and controls. Also, “Portuguese Institute of Statutory Auditors” has arranged trainings and seminars for auditors to increase the acceptance of CAATTs.

Report 17: Continuous auditing with a multi-agent system

Nowadays, Information technology is used in almost every field, be it shopping or teaching, every industry is going for automation. Business is one such example.

Technology has changed the business management dramatically by shifting it to online mode. Change in management has also changed the mode of preserving business related information. The electronic format of information has forced auditors to process the audits electronically and generate evidences. As we know the data is present in system as soon as an event has accrued, this has put a pressure on auditors to provide a real-time auditing services or a sort of continue auditing. To consider the need of continuous auditing, this work has proposed an agent based continue audit model. This model is independent of information system used by client and can be customised as per requirements of auditing to perform automatic real-time auditing.

Report 18: Statutory auditor's profile and computer assisted audit tools and techniques' acceptance: indicators on firms and peers' influence

In this paper, statutory auditors' profiles will be defined on Computer Assisted Audit Tools and Techniques' intention to use and use concerning the influence of statutory auditors firms' dimension (number of collaborators, number of financial auditors and number of statutory auditors), peers impact (other statutory auditors and the professional group influence on the professional context) and social influence (people and firm support). Additionally, previous research on the experience with tools and its influence on the acceptance are documented this research group, and also the professional experience (number of years of professional experience). The variety of computer assisted audit tools available in the firm and its impact on the acceptance is also addressed. In the reference group, was possible to conclude that firm dimension, peers and social influence and experience have a positive impact on Computer Assisted Audit Tools and Techniques' acceptance. However, the number of available tools has a negative impact on intention to use confirming that is not relevant to have several tools but to be expert in one or two tools.

Report 19: Continuous Auditing of Database Applications: An Embedded Audit Module Approach

Companies that use information systems for carrying-out their business are really concerned about the data, they neither want to loss it nor bear a security breach . Data is asset for them. This article aims to demonstrate the modules that are present in database applications to address security and perform audits. The module in application program for auditing is known as “Embedded Audit Module(EAM)”. This module automatically captures the audit related information in real-time. The author in this study has presented an EAM example in a relational database. The interface auditors can use to perform auditing. Also, the advantages and disadvantages of using EAM are stated along with future directions.

Report 20: The impact of big data on accounting and auditing

With the invent of big data, the companies have considered the data an asset. Big data and related analytics techniques will disrupt the working conditions of auditors and their role. This article aims to present this impact. According to authors, now accountants need to perform more than bookish processes, they are key information providers for decision maker. Big data analytics use such methods that ensure the audit quality at its best and perform fraud detection at its own. The advanced information system and automation in business procedures have lessen the need of human intervention. These systems unavoidably need the skills and expertise of auditors and accountants to build the functionalities and they also need to develop a mindset that understands the corresponding information from system and formulate the strategies accordingly.

Report 21: Cybersecurity Tools for IS Auditing

Growing security issues and threats require the strong cybersecurity framework for enterprises. Important resources and data should be safeguarded. It is also identified by organisations the that need an enterprise-wide solution to protect the information and detect the malicious attacks on the data of company. Therefore, companies are using multiple cybersecurity software to protect the users and information at different levels. Wide range of information systems auditing tools have also increased the technological threats, some loose the control to avoid the threats and require further checks. The weakness in detection is not because of technology fault but due to lack of awareness by individuals who use the software for audit processes, either they forgot to execute the process or use a poor defending mechanism. Therefore, to understand the problem deeply, this research aims to perform a comparative study of capabilities of most of the available automated cybersecurity auditing tools for frontend cloud computing. The results of this comparative study show that how to secure the enterprise's assets by using automated tools and techniques. Also, it uses clear steps to gather the information to provide the evidence required in the final report of IS auditing.

Report 22: Blockchain technology in the auditing environment

Objective: Blockchain technology (BT) is much talked concept in recent years and will continue to grow in next years. Many applications like land verification systems, online transaction systems have started to move their application on blockchain because of its security and efficient cryptographic functions. Auditing is also a system that requires privacy, free from fraud and transparent. Moving current IS auditing system to Blockchain is going to be innovation and need of time in near

future. Therefore, this article aims to study about blockchain technology, it variants and how to apply this in auditing.

Conclusion: There is no doubt in the success of blockchain technology in the performance of auditing software, but there are many things that need to be considered before moving to this new technology. It is important find a match between blockchain technology and current "Computer Assisted Audit Tools and Techniques". The use of AI in current systems enables auditors to analyse the big data continuously. Along with existing audit system, the new technology should comply with the government regulations and complexity of usage. There is a long way to adopt BT in auditing. Accountants and auditors need trainings to adopt this. Companies are required to invest the resources for building BT software to be successful.

REFERENCES FOR CASE STUDIES, REPORTS AND ARTICLES

REPORT 1 :

Jifeng Luo, Ming Fan, Han Zhang

Journal of the Association for Information Systems, Forthcoming, 2016-056, 2015

https://scholar.google.com.pk/scholar?q=Information+systems+in+apparel+industry+articles&hl=en&as_sdt=0&as_vis=1&oi=scholart#d=gs_qabs&u=%23p%3DNaSL5CMpeSsJ

REPORT 2:

School of Management, Enterprise Hall, MSN 5F5, George Mason University, Fairfax, VA 22030, USA

Kenan-Flagler Business School, University of North Carolina, Chapel Hill, NC 27599-3490, USA

Received 31 January 2000, Revised 2 November 2000, Accepted 16 January 2001, Available online 26 September 2001.

https://www.sciencedirect.com/science/article/abs/pii/S0378720601000817

REPORT 3:

by Ankita Chowdhary 24-September-2019

https://apparelresources.com/technology-news/manufacturing-tech/information-technology-disrupting-apparel-industry/

Report 4

https://www.kobo.com/us/en/ebook/information-systems-for-the-fashion-and-apparel-industry

Report 5

https://www.fibre2fashion.com/industry-article/473/information-technology-and-textile-industry

Report 6

https://www.fibre2fashion.com/industry-article/851/management-information-system-in-tailoring-industry

Report 7:

https://www.ukessays.com/essays/beauty-therapy/the-fashion-world.php

Report 8:

https://www.cambridge.org/core/journals/journal-of-management-and-organization/article/crossing-the-management-fashion-border-the-adoption-of-business-process-reengineering-services-by-management-consultants-offering-total-quality-management-services-in-the-united-states-19922004/DB78C60EDA2DEC24DF7C848ACED38090

Report 9:

https://www.fibre2fashion.com/industry-article/6910/product-data-management

Report 10

https://www.cgsinc.com/blog/8-steps-successful-erp-implementation-fashion-retail-companies

Report 11

https://onlinegarmentsacademy.blogspot.com/2019/12/internal-audit-checklist.html

Report 12

Impact of Information Technology in Garment Industry (instylesoft.com)

Report 13

(PDF) ERP in Fashion: Implementation Issues and Business Benefits (researchgate.net)

Report 14

https://www.onlineclothingstudy.com/2011/01/role-of-information-technology-in.html

Report 15

https://www.emerald.com/insight/content/doi/10.1108/02686900910948198/full/html

Report 16

https://dl.acm.org/doi/10.1145/2311917.2311925

Report 17

https://www.sciencedirect.com/science/article/abs/pii/S0167923606001175

Report 18

https://dl.acm.org/doi/10.1145/2618168.2618172

Report 19

https://www.emerald.com/insight/content/doi/10.1108/978-1-78743-413-420181005/full/html

Report 20

https://www.igi-global.com/article/the-impact-of-big-data-on-accounting-and-auditing/270934

Report 21

https://ieeexplore.ieee.org/abstract/document/8588282

Report 22

https://ieeexplore.ieee.org/abstract/document/8399460