Exploring the Influence of Digital Transformation on Employee Job Satisfaction: A Qualitative Analysis within a Malaysian Multinational Electricity Firm

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Abstract

Objectives of the Study – Digital transformation, characterized by disruptive innovation, entails the optimization and automation of comprehensive processes aligned with long-term organizational objectives. This transformation involves the integration of technologies such as business process management, Artificial Intelligence (AI), Natural Language Processing (NLP), and Robotic Process Automation (RPA). These technologies modernize operations by automating transactions, improving operational precision, and enabling employees to engage in complex strategic endeavors. The introduction of digital platforms has a direct impact on job parameters, including schedules, workload, complexity, and allocation, thereby influencing job satisfaction. Employee satisfaction encompasses contentment with work quality, work-life equilibrium, performance management, job distribution, and skill development. Evaluating digital transformation's effect on employee job satisfaction is imperative, given its daily impact on employees. Research on the direct influence of digital transformation on internal employee job satisfaction is limited.

This study aims to address the prevalent issue faced by Chief Procurement Officers and their teams regarding the direct impact of digital transformation on employee job satisfaction within the domains of procurement and sourcing processes. The primary research question posited is, "What is the influence of Digital Transformation on the Employee Job Satisfaction Index within sourcing, procurement, and tender management domains?" To answer this inquiry, a qualitative investigation was conducted within the Procurement division of a Malaysian Energy and Utility organization. Procurement management occupies a critical role in the organizational structure, ensuring the seamless operation of vital systems. This research confronts existing challenges, scrutinizes process deficiencies, and assesses the potential for enhancing job satisfaction among Sourcing and Category Managers. This assessment hinges on the utilization of Digital Technologies, encompassing Business Process Management, Robotic Process Automation, and Natural Language Processing, within the distinctive context of a Malaysian Multinational Electricity and Utility Company, which serves as the case study organization.

Methodology – This research employs a qualitative research methodology to delve into the impact of digitalized processes on employee job satisfaction. To gather primary data, purposeful sampling is utilized, focusing on selecting homogeneous case samples from specific procurement offices where digital transformation initiatives have been implemented. These samples are chosen based on their similarities in terms of factors such as work experience, age, income level, and work area. Subsequently, informal telephonic interviews are conducted with these selected employees using the MS-Teams platform. The research takes a single-organization case study approach, which involves conducting comprehensive and in-depth interviews with experienced and knowledgeable stakeholders within the Malaysian Case-Organization. To analyze the collected data, the study utilizes NVivo, a qualitative analysis software tool. This NVivo-based analysis involves code-based thematic analysis and sentiment synthesis, adding depth and rigor to the overall analytical process. In addition to primary data collection, the research also involves secondary data gathering. This includes an extensive review of existing literature, encompassing research papers, conference papers, book chapters, analyst reports, IT survey reports, and industry survey reports, which are publicly available on digital web platforms. Furthermore, specific secondary data related to the Malaysian Case-Organization is extracted from program documentation, case success stories, quick wins, and automation training materials associated with the digitalization initiatives within the organization. This comprehensive approach ensures a well-rounded and thorough investigation into the research topic.

Key Results/Findings: The study's results, obtained through unstructured open interviews and subsequent secondary analysis, underscore the significant importance of digital transformation as perceived by internal stakeholders and its impact on employee well-being. The research establishes that digital transformation initiatives have a clear positive effect on employee satisfaction and individual job performance. Notably, these initiatives effectively reduce manual errors, enabling employees to focus on complex strategic tasks. Moreover, digital transformation leads to cost savings and the potential transition of job roles from operational to strategic, lean, and adaptable, thereby enhancing overall job

satisfaction. This aspect is often overlooked in favor of metrics emphasizing cost reduction, customer satisfaction, and operational efficiency in the context of digital transformation. The findings offer valuable guidance to senior management, prompting a focus on digitalization and automation efforts while considering internal human resource and leadership perspectives. This assessment evaluates the impact of digital transformation on aspects such as work allocation, job rotation, work-life balance, work quality, and performance management.

Discussions: The assessment of digital transformation's success in procurement and sourcing processes should extend beyond operational and financial considerations to encompass employee job satisfaction. While the tactical and cost-focused strategic benefits of digitalizing procurement processes have received extensive attention in literature, there is comparatively less understanding of the long-term impact and relationship between procurement process automation and employee job satisfaction. Typically, research objectives and aims predominantly revolve around customer satisfaction indices, partner satisfaction indices, turnaround times, or financial Key Performance Indicators (KPIs), with relatively rare exploration from the viewpoint of internal employees and stakeholders. This research seeks to address this gap, focusing on the perspective of the internal resources within the purchasing organization (specifically the Malaysian Case-Organization). Importantly, digital transformation has a direct influence in reducing manual errors and enables employees to engage in more complex, strategic, and intellectually stimulating tasks. It holds the potential to yield substantial cost savings and offers the opportunity to transition job roles from operational to more strategic, streamlined, and adaptable roles, thereby enhancing overall job satisfaction. Research in this domain underscores the potential for digital transformation to drive cost savings and facilitate the transformation of job roles toward more strategic, lean, and flexible functions, consequently bolstering overall job satisfaction.

Implications: The research findings are poised to offer valuable insights to senior management, prompting a focused approach towards digitalization and automation endeavors, with a keen eye on internal human resource and leadership considerations. The aim is to harness the benefits of these initiatives in terms of efficient work allocation, improved job rotation, enhanced work-life balance, elevated work quality, and proficient performance delivery through proper training and skill management. Furthermore, the outcomes of this research are targeted at assisting the Chief Procurement Officer (CPO) office and the HR team in evaluating the additional value contributions that digital transformation initiatives can offer in the domains of Procurement and Sourcing, specifically from the perspective of employee job satisfaction. It is important to underscore that digital transformation initiatives have the potential to yield a discernible positive impact on employee satisfaction and individual job performance. However, the inclusion of resource engagement and satisfaction analysis often remains absent in the planning models for business process digitalization. For a successful digital implementation, it is crucial to assign the respective activities and responsibilities to the appropriate groups of employees, thereby enabling them to enhance process quality while simultaneously bolstering employee job satisfaction. This research recognizes a direct correlation between an organization's capacity to surmount digitalization challenges, improved job satisfaction, role suitability, and overall organizational performance, which can be evaluated in terms of both process efficiencies and organizational capabilities. Digital technologies and modernization serve not only to support and facilitate process harmonization but also contribute to the more optimal alignment and utilization of human resources.

Keywords— Digital Transformation, Job Satisfaction, Satisfaction Index, Qualitative analysis, performance management, digitalization, interview, homogeneous sample, purposeful sampling, NVivo.

INTRODUCTION

Digital transformation is considered to be the most impactful form of disruptive innovation that can bring value in terms of optimization, digitalization & automation of end-to-end processes to achieve organizational long-term goals. In order to transform the organizational process digitally, organizations need to embrace new-age technologies like business process management, Artificial Intelligence & Natural Language Processing, and Robotic Process Automation to name a few. The combined utilization of digital technologies to modernize the process-scape by automating transactions can bring enhanced operational accuracy and motivate the employees to focus on more complex strategic problems.

Now, the introduction of a digitally enabled platform has a direct impact on daily job schedules, volume, complexity, and allocation, resulting in certain impacts on job satisfaction. Job satisfaction is measured as the extent to which employees are happy with the work profile or work quality & value, and it has a direct relationship with employee Work-life Balance, Work Performance Management, Job Rotation/Distribution & Skill Management.

Hence, it is important & crucial for any digital transformation to be measured on a scale of employee job satisfaction index as employees are directly using & experiencing the impact of digital transformation on a daily transactional basis.

There is not much research analysis available which can establish how much direct impact digital transformation can bring on internal employee job satisfaction. This case study-oriented research, primarily from qualitative perspectives, is intended to fulfill this gap with a reference case study from Malaysian Multinational Electricity & Utility Company (to be referred as Case-Organization).

Hence, to summarize, the research focus is on analyzing digital automation impact with the introduction of BPM, AI/NLP/ML based Text & Sentiment analyzer & RPA on Employee job Satisfaction Index of the procurement division of the Malaysian Electricity Distribution organization.

▪ **Background Research**: This background study is intended to analyze the previous research initiatives on the effectiveness of digital transformation in sourcing areas and if there is any relationship that exists with job satisfaction.

- **Digital Transformation in Procurement & Sourcing**: Strategic Sourcing can be described as a disciplined & systematic approach for reducing overall costs while improving levels of quality. Strategic Sourcing supports organizational objectives, culture and philosophy, Employee bandwidth, and overall partner-market conditions. In the context of this research study, we are considering three major levers of digital transformation which is playing critical role in Malaysian Case-Organization to automate & modernize their E2E Procurement landscape.
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▪ Business Process Management (BPM)
▪ Natural Language Processing (NLP)
▪ Robotic Process Automation (RPA)

- **Employee Job Satisfaction:** Probably the most cited definition of job satisfaction in organizational research is that of Edwin A. Locke (1976), where it is termed as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Simply, job satisfaction is defined as the degree to which an employee considers him/her self-motivated & satisfied with his/her job.
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In this research initiative, I have decided to measure Employee Satisfaction Index (ESI), an indicator calculates the degree to which the employees are happy with their job profile.

Typically, JSI is calculated with employees score to answers given to the questions with rating '1 – 5' where strongly disagree (scoring 1) to Strongly agree (Scoring 5) and is measured as follows:

Employee Job Satisfaction Index (%)
= (Total point scored against set criteria by each respondent /Total question answered by respondents) x 100

- **Malaysian Multinational Electricity & Utility Company Context:** This research considers Malaysian multinational electricity & Utility company as case organization and it is the only electric supply company in Malaysia Peninsula which is involved in the power generation, transmission, and distribution of electricity. Objectives of case organization's major transformation engagement is to build a unified digitalized platform that facilitates the E2E Procurement Lifecycle process. This 5-years long initiative under CPO leadership is named as Procurement Cycle Digitalization (PCD) which aims to streamline the procurement process, to reduce manual interventions and to provide seamless user (employee) experience via integrated omnichannel platform.

▪ **Problem Statement:** The research is intended to address the problem statement which typically Chief Procurement Officer & his office typically face, whether or not digital transformation in the areas of procurement & sourcing processes have any direct impact on employee job satisfaction.

▪ **Research Questions:** Saunders et al. (2009), described that establishing and framing research questions in any research work or analysis project is the prime condition to determine the success of the research. Defining proper research questions positively augments overall procedures of deducing proper conclusions from collected & analyzed information.

In this research project, the overall research objectives are focused on the impact of the digitalization of procurement & sourcing processes in Malaysian Case-Organization on job satisfaction of procurement-facing employees. In order to

gather the focused outcome of the assessment & evaluation, it is required to frame set of research questions which are expected to be answered with the result set of the research.

The following research questions are suggested for each of the research objective are highlighted as follows.

- **RQ#1:** Can digital transformation & system automation of E2E procurement/Sourcing & Tender Management areas impact on Employee Job Satisfaction of the Procurement Division who are playing partner/vendor facing roles?
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Aim of this research is to get the answer to the afore mentioned Research Question so that conclusive inference can be drawn on the correlated entities in scope of this project.

▪ **Significance of the Study:** Success of digital transformation in procurement & sourcing processes should be evaluated not only from operational and financial benefit perspective, but also from the perspective of employee job satisfaction. Even though tactical & cost focused strategic benefits of digitalization of procurement processes have been extensively discussed, researched & analyzed in multiple literature reviews, relatively less is known on the long-term impact & relationship between procurement process automation and employee job satisfaction. Generally, in most of the cases, the research objectives & aims are associated with the customer satisfaction index or partner satisfaction index or related to turn around time or even financial KPIs, but very rare it is assessed from the perspective of internal employees' & stakeholders' point of view. This research's intension includes addressal of this concern from the perspective of buying organization's internal resource group (Malaysian Case-Organization as in scope).

▪ **Perceived High Level Benefits from the Study:** The intended research finding analysis should help senior management to concentrate their focus on digitalization & automation activities from internal human resource & leadership perspectives to get the advantages of effective work allocation, better job rotation, improved work life balance, enhanced work quality and efficient performance delivery augmented by proper training, skill management etc. Also, this research outcomes are focused to help Chief Procurement Officer (CPO) office & HR team to evaluate what extra value additions that the digital transformation engagement can bring in Procurement & Sourcing areas from employee job satisfaction index perspective.

▪ **Methodology of the Study:** This research initiative has adopted single organization case-based research methodology. Following are the details about research approach, case selection rationale, data collection & overall research process:

- **Research Approach:** A single case study-based qualitative research approach is chosen to find out the existence of a possible correlation between digital automation of procurement & sourcing life cycle and Procurement officers & impact on employees' job satisfaction. Case sample of homogeneous set was interviewed & analyzed for in-depth analysis.

- **Selection of Case Organization:** A single case organization from Malaysia Energy & Utility sector is considered here to be explored to analyze afore-mentioned critical relationship. The case organization, which is one of the largest electricity generation & distribution companies in Malaysian Peninsula, is chosen because they have rich experience of procurement division, they are currently undergoing digitalization of their automation process for last 5 years with a plan to continue for at least next 5years till they reach targeted maturity and availability of access to their employees/data/systems.

- **Data Collection & Analysis:** The data is gathered and analyzed from both primary and secondary sources.

▪ **Primary Data Collection & Analysis:** This research leverages primary data collection from sourcing & category managers, leaders & HR personnel from Procurement Division Malaysian Case-Organization on the basis of unstructured open questionnaire based online interviews & conversation via MS-Teams call. Based on the inputs received from the interview transcripts, the research evaluates the correlation between in-scope research entities. Primarily the targeted group of respondents are identified as who are directly associated with the impacted process. NVivo based qualitative analysis with the help of code-based theme & sentiment synthesis is done to augment the overall analysis process.

▪ **Secondary Data Collection & Analysis:** This research gathered secondary data based on literature reviews of research papers, conference papers, book chapters, analyst report, IT survey report, industry survey reports etc. available on digital web public domains. Malaysian Case-Organization specific secondary data is analyzed from program documentation, case success stories, quick wins, automation training materials related to digitalization.

▪ **Scope of the Study:** Following are the high-level research boundaries & limitations which can be addressed as future scope of broader research:

- Research is conducted on One Case from Single organization (Malaysian Case-Organization) in one country (Malaysia).
- Digital transformation perspective includes three major technology drivers in scope: Business Process Management, Robotic Process Automation & Natural Language Processing. Other dimensions of digital transformations are not considered in scope.
- Impact is measured on single aspect of Job satisfaction Index. No other employee impacts from human resource & leadership perspectives are assessed.
- Time limitation of the research is also considered as important factor as this research needs to adhere to stringent completion timeline.

LITERATURE REVIEW

Digital transformation seems to be the most effective technology-based disruptive innovation that can bring value in terms of optimization, digitalization & automation of end-to-end processes. Digitally transformed business strategy brings cost reductions, enhanced control, and better service quality levels to internal and external stakeholders with enhanced responsiveness. Organizations are reimagining their procurement models and reconceptualizing to create maximum value and gain competitive advantage using digitalization (Berman, 2012).

Both academic & professional research and practice clearly recognize digital transformation as a key contributor to achieving the organizational vision. A digitally transformed process backbone can follow emerging tendencies that have an impact at the corporate level, like sustainability, which is generally accepted to be strongly interrelated with digital transformation (Nicoletti, 2020). Bonnet and Westerman (2020, November 19) stated that "the foundation for digital transformation is a clean, well-structured digital platform — the technology, applications, and data that power a company's business processes".

In order to digitally transform procurement & sourcing backbone, the organizations need to embrace new age technologies like business process management, Artificial Intelligence & Natural Language Processing, Robotic Process Automation to name a few. The combined utilization of robotics processes along with artificial intelligence (AI) and machine learning (ML) has every potential to fast-track the existing sourcing & procurement flows by automating transactions while enhancing the accurateness and motivating the sourcing operational managers to focus on complex strategic problems. Any organization adopting innovative, cutting-edge digitalized solutions in this space can achieve a competitive position while driving increased transparency and minimizing risk.

Now, this introduction of a digitally enabled procurement platform has a direct impact on daily job schedules, volume, complexity, and allocation, resulting in positive impacts on job satisfaction. Job satisfaction is measured as the extent to which employees like the job or individual aspects of jobs, such as the nature of work or supervision and it has a direct relationship with employee Work-life Balance, Work Performance Management, Job Rotation/Distribution & Skill Management. A group of researchers has recommended that a valid measure of the overall standard of job satisfaction is the most critical detail to consider about an employee (Rosnowski & Hulin, 1992). The valuation of employee attitudes in the form of job satisfaction is now a well-known activity in any organization, in which management is worried about the physical and mental health of the employees (Spector, 1997). More than 70% of organizations are focusing on empowering their employees to enhance their performance level (Ergeneli et al., 2007). A group of researchers have recommended that a valid measure of overall standard of job satisfaction is the most critical details to consider about an employee (Rosnowski & Hulin, 1992). Supervisors, human resource professionals, managers, employees, and staffs in general are all concerned with ways of increasing job satisfaction (Cranny, Smith, & Stone, 1992). The valuation of employee attitudes in the form of job satisfaction is now a well-known activity in any organization, in which management is worried with the physical and mental health of the employees (Spector, 1997).

The aptly titled Job Satisfaction (Hoppock, 1935) describes this as any combination of psychological, physiological, and environmental circumstances that cause a person to truthfully say that they are satisfied with work quality. As per Smith et al. (1969), job satisfaction as the feeling an individual possess about his or her job. Locke (1969) defined job satisfaction as a positive or pleasurable reaction resulting from the appraisal of one's job, job achievement, or job experiences. As per Vroom (1982), job satisfaction is workers' emotional orientation toward the current job roles.

There is a direct relationship observed between employee empowerment and job satisfaction of employees (Choi et al., 2016). According to Matzler & Renzl (2006), employee satisfaction should be treated as one of the most critical drivers of both organizational quality and productivity.

Hence, it is important & crucial for any digital transformation to be measured in a scale of employee satisfaction index as business process-oriented employees are directly using & experiencing the impact of digital transformation on a daily transactional basis.

Findings Job satisfaction across workforce levels, particularly for executives in procurement domain, is difficult as they are generally well paid and do not face any physical hazards as such, yet their satisfaction behavior varies because of several job parameters. Proactive innovative futuristic organizations do not only hire and retain the best people in procurement domain but also help employees at different workforce levels understanding motivations, empowering them & making their work more meaningful. The skills requirement and academic requirements differ based on the job role/title. Supply chain management related roles e.g., procurement officers typically require academic degree and solid work experience in multiple areas of the procurement & supply chain domain. Procurement related jobs mostly have the highest salaries, but at the same time it demands the critical proficiency. Supply chain management and Procurement processes share overlapping skill sets - on Supply chain fundamentals, Business skills & Soft skills. Kohet al (2014) have revealed the significance of e-procurement in improving employees' productivity, increasing real time communication, influencing achievement of lean procurement processes, enhancing procurement service delivery, and improving procurement efficiency, thus attaining overall organizational performance objectives. Llorens et al (2013) established the fact that effective e-procurement ethics offers high level of transparency, greater accountability, and more value for money, hence improving employee work ethics & responsibility.

Even though all the scholars accept the important roles played by the procurement automation in next-gen industry vision, yet very limited studies were conducted to explain the details with respect to purchase department employees & their job motivation. To address these gaps, this research proposes to evaluate relation between the impact of digitalization in purchase management process on internal stakeholders' efficiency, motivation, work life balance, workload management.

Background Review from Malaysian Case-Organization Context: This research considers Malaysian multi-national electricity & Utility company as case organization which is the only electricity supply organization in Malaysia Peninsula & the biggest publicly listed electricity company in Southeast Asia with MYR 99.03 billion worth of assets. It caters around 8.4 million consumers across Peninsular Malaysia. The organization is involved in the generation, transmission, and distribution of electricity along with repairing, testing, and maintaining power plants, providing engineering, procurement and construction services for power plants related products, assembling, and manufacturing high voltage switchgears, coal mining and trading.

Objectives of Malaysia's major transformation engagement is to build a unified platform that facilitates and guides the E2E Procurement Lifecycle process via Business Process Management System suite. This engagement is named as Procurement Cycle Digitalization (PCD) which aims to streamline the Procurement Process and to provide Seamless Customer Experience via integrated omnichannel platform. In order to get rid of existing challenges like Manual & Silo Procurement Processes, No visibility to track status of a case, Bad customer experience, Demoralized vendors etc., Malaysian Case-Organization wanted to develop a holistic platform on Pega 8 (both on Web & mobile) that can automate & standardize the E2E Procurement life cycle including E- Sourcing, Approval for Sourcing & Tender Preparation, Tender Submission & Sample Management, Tender Evaluation/Negotiation, Memo Preparation & Award, Material Delivery Application, Credit Material Request & Status Management, Scrapping Process Management, Logistic Management etc.

Hence, broad objectives of the procurement division were to bring digitalization, automation and transformation of procurement cycle under the leadership of CPO and they named the 5-years long transformation program as "Procurement Cycle Digitalization (PCD)".

Malaysian Case-Organization Procurement users required new skills and knowledge to adopt and support digitally transformed procurement platform. Training and knowledge transfer (KT) are key components of organizational change management approach to ensure following key outcomes are achieved as part of the overall change journey.

Targeted and effective training can only occur by first understanding the needs and characteristic of the audience. Training needs analysis is required to establish the impact to different user groups and their training requirements for successful understanding and adoption of the changes in the new set of processes and system. Identification of the target audience

and their training needs is a cornerstone to successful training. Depending on the impact of the changes and the size of the end user, the training strategy included Train the Trainer (TTT) methodology or a Direct End User Training (EUT) methodology limited to certain key users from Procurement division.

The primary users from the Procurement division, category managers, business users, procurement leads etc., were expecting the lots of benefits from the implementation of BPM, NLP & RPA in the space of procurement & sourcing, especially from the perspective of user experience by re-shaping the value proposition of users (employees) by enriching, enhancing and redefining the overall work experience.

RESEARCH METHODOLOGY & DATA GATHERING

This research initiative has adopted single organization case-based qualitative research methodology to explore the possible impact of digitalization of sourcing & procurement processes on internal stakeholders & employees' job satisfaction. Following are the details about research approach, case selection rationale, data collection & overall research process:

Research Approach: A single case study-based qualitative research approach is chosen because of the intention to find out the existence of a possible correlation between digital automation of procurement & sourcing life cycle and Procurement officers & impact on employees' job satisfaction.

This research considered the Purposeful Sampling method to conduct the qualitative research. Purposeful sampling requires access to key informants in the field who can help in identifying information-rich cases (Suri, 2011, Patton, 1990). This sampling is a kind of nonprobability sampling approach where units are selected for inclusion in the intended sample because of their specialization & characteristics. Purposeful samples are generally small in size, so their utility and credibility are questioned on the basis of their logic and purpose. The logic and power of purposeful sampling depend on selecting information-rich cases for in-depth study. Information-rich cases contain issues that are important for the research, therefore, purposeful sampling. (Shaheen et.al., 2019).

This sampling was done on a group of homogeneous stakeholders in terms of age, gender, income group, department, educational qualification & all of them are direct stakeholders or impacted entities of the digital transformation in the case organization and accordingly interviews were conducted. The purpose of using homogeneous sampling is to describe some particular subgroup in depth (Patton, 1990). Again, the study of such typical programs does not, of course, permit generalizations in any rigorous sense. Typical case sampling cases are selected with the cooperation of key informants, such as program staff or knowledgeable participants (Patton, 1990). According to Patton (1990), the 'logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling' (p. 169). 'In direct contrast to maximum variation sampling is the strategy of picking a small, homogenous sample, the purpose of which is to describe some particular subgroup in depth' (Patton, 2002, p. 235). Homogenous samples are particularly suitable for participatory syntheses in which the synthesist co-synthesizes research with practitioners about a phenomenon that has direct implications for their practice (Suri, 2007). Because of these reasons, in this study, homogeneous sampling form of Purposeful sampling is leveraged within a department of a particular organization as case study, where digital transformation initiative was taken.

Selection of Case Organization: Case is a descriptive research document, often presented in narrative form, based on a real-life situation or event, and can convey a balanced, multidimensional representation of the context, participants, and reality of the situation. Cases are real & are created explicitly for careful research and study to seek to include sufficient detail & information to elicit active analysis and interpretation by users with differing perspectives. A case-based approach can provide scholarly inquiry that investigates a phenomenon within its real-life context and helps in observing all of the variables and their interacting relationships. Case study research can employ various data collection processes such as participant observation, document analysis, surveys, questionnaires, interviews, Delphi processes, and others. This unique characteristic—the ability of the researcher to use the observations of a single unit or subject, or contextual case, as the focal point of a study, along with its plurality as a research method—has enabled case study research to transcend the boundaries of traditional research paradigms. The purpose of most case study research is to answer the why and how questions. In this study, primarily reflective case analysis was done to gather an explanation of a phenomenon. (Dooley, L. M., 2002). Typical cases are selected 'with the cooperation of key informants' or using 'statistical data… to identify "average-like" cases. When employing typical case sampling, it is crucial 'to attempt to get broad consensus about which cases are typical–and what criteria are being used to define typicality' (Patton, 2002, p. 236, Suri, 2011).

The selection of a single case organization from Malaysia Energy & Utility sector is considered here to analyze the applicability of the afore-mentioned critical relationship. The case organization, which is one of the largest electricity generation & distribution companies in the Malaysian Peninsula, was chosen because they have rich experience of procurement division, they are currently undergoing digitalization of their automation process for last 5 years with a plan to continue for at least next 5years till they reach targeted maturity and availability of access to their employees/data/systems. In addition, Malaysian Case-Organization, being a large public company with significant purchasing ability, it has every perspective to help us to analyze e-procurement system implementation success in connection with employee performance & job satisfaction.

Unit of Analysis – Inclusion & Exclusion: The unit of analysis is selected as Procurement Division of Malaysian Case-Organization as they are owning the E2E procurement process and the vision of single consolidated e-procurement system implementation with continuous improvement is part of their departmental KPIs. Only the employees who are not directly associated or impacted within this department by the digitalization are excluded from the sample selection along with few employees who are on paid/maternity or other leaves or working as contractual are also not considered.

Challenges in Unit Selection & Sparsity Perspective: It is acknowledged that use of a single case organization sometimes restricts generalizability of findings, but being the research in its early formative phase, a deliberate selection has been made to restrict the boundary of research attention to a single case organization to explore thoroughly the existence of core paradigms of relationship under research propositions that can be concluded within the available time frame. This research is intended to evaluate Procurement Division of Malaysian Case-Organization as they are owning the E2E procurement process due to the access I have in this division to get the data collected for further analysis, though it was initially a challenge to educate the stakeholders about the intension of this academic research and get the approval.

Data Collection: The data is gathered and analyzed from both primary and secondary sources. This both-way approach enables in obtaining multiple perspectives (procurement manager, category managers, project managers and organization leaders, technical consultants etc.) & provides systematic way to compare answers from different perspectives.

Primary Data Collection & Analysis: This research leverages primary data collection from sourcing & category managers, leaders & HR personnel from Procurement Division Malaysian Case-Organization on the basis of open semi-structured questionnaire-based interviews. Based on the inputs received from the interview transcripts, the research evaluates the correlation between in-scope research entities.

Primary way of gathering the details from the identified stakeholders are open ended interviews conducted via MS-Teams which contained more or less same set of questions in common informal discussion mode to gather their perception and response. Overall, total 8 set of interviews were conducted with 2 category manager, 2 Senior Managers/Workstream Leaders), 2 Approving Manager, 1 Business User, and 1 ICT/IT Consultants of procurement department. Details of the transcripts of the response from the interviews are given in the next section for analysis. Almost all the 8 interviews were conducted each of 30Mins (approx.) over MS-Teams in English language. NVivo based interview transcript analysis with the help of code-based theme & sentiment synthesis is done to augment the overall analysis process.

Following was the set of questionnaires discussed with the intended stakeholders during the interview process:

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behaviour in terms of time management or operational efficiency or overall job satisfaction?
4	What do you think about the impact of digital transformation on employee job fitment & allocation?
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?
7	Do you see any impact of digital transformation in employee churn rate in future?

8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual work?
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?
10	Are you planning to measure any employee satisfaction index (if not already done) to analyse the impact of digital transformation on their overall job satisfaction level?

Any details of participating employees are not recorded due to privacy & information security commitment. This is to mention that this research initiative is independently conducted by the researcher and not funded or sponsored by Case organization or its employees or by any partners/suppliers/vendors. This research is conducted with complete personal academic inquisitiveness without any profitable intention. The participants voluntarily responded to the questions with their consent (Consent Form used is attached) to help this academic study and no personal details from them were captured or used in this research.

Secondary Data Collection & Analysis: This research gathered secondary data based on literature reviews of research papers, conference papers, book chapters, analyst report, IT survey report, industry survey reports etc. available on digital web public domains. Malaysian Case-Organization specific secondary data is analyzed from program documentation, case success stories, quick wins, automation training materials related to digitalization in the organization.

The secondary data is crucial & supports in reconciliation & verification of interview & discussion outcomes. Secondary data is required in the research design of subsequent primary research and can offer a baseline with which the gathered primary data-oriented results can be compared to. This combination of the data collection enables in better coverage & validity.

Research Tool: This research project leverages MS-Excel & MS Teams as the primary data collection/transcription tool to gather, analyze and process the data collected from the interviews with Malaysian Case-Organization stakeholders via telephonic conversation with 8 targeted professionals from the same department. No personal information is captured and leveraged in the process of analysis & all the details remain confidential, anonymous and used only for this academic analysis.

The consent form is used to get the formal consent from the 8 interviewees. The analysis of theme & sentiment is conducted on the collected transcript of the 8 interviews & analyzed via NVivo to get Code based synthesis of data. NVivo Release 12.6.1.970 Trial Version is leveraged here to analyze the transcript which is detailed out in next section. Transcripts are converted in PDF file to upload on NVivo and then software was run on the transcript to study further on the details captured from theme/code as well as sentiment perspective.

QUALITATIVE ANALYSIS & FINDINGS

Qualitative Analysis Approach: Even though tactical & cost focused strategic benefits of digitalization of procurement landscape has already been widely discussed, researched & analyzed in numerous literature reviews, relatively less is known on the long-term impact & relationship between procurement process automation and employee satisfaction. This research's intension includes analysis of this perspective from the perspective of buying organization (Malaysian Case-Organization Procurement Division as in scope). This association is assessed by deriving a set of parameters & propositions that help in establishing the correlation in new age e-procurement driver organizational change. The research assertion on a possible association is evaluated by analyzing data set collected from responses received from Malaysian Case-Organization procurement team based on conducted interviews. The intention of research finding analysis is to help notify senior management to emphasize their attention to these digitalization & automation activities not only from operational & Cost effectiveness perspective, but also from internal human resource & leadership perspectives to get the advantages of effective work allocation, better job rotation, improved work life balance, enhanced work quality and efficient performance delivery augmented by proper training, skill management etc. The data is gathered and analyzed from both primary and secondary sources. This both-way approach enables in obtaining multiple perspectives (procurement manager, category managers, project managers and organization leaders, technical consultants etc.) & provides systematic way to compare answers from different perspectives. This research gathered secondary data based on literature reviews of research papers, conference papers, book chapters, thesis notes, analyst report, IT survey report, industry survey reports etc. available on digital web public domains. Malaysian Case-Organization specific secondary data is analyzed from program documentation, case success stories, quick wins, automation training materials related to digitalization in the organization.

Though the sample interview target size might look smaller but this sample is perfectly targeted, focused and directly impacted by the digital transformation in procurement space for Malaysian Case-Organization and hence they are knowledgeable and have hands on experience & expertise in the areas we are considering in scope. Therefore, the responses are volume wise lower but quality wise completely aligned. These respondents are experts & experienced in the field and contributed critically to interview process.

Interview Response Details/ Transcripts: This research process includes 8 semi-structured interviews conducted with procurement departments employees like category managers, business users, IT consultants, approvers etc. via MS-Teams call & further discussions (each around 30mins), and the outcome of the discussions are tracked & documented as the transcript for further analysis. Following is the list of transcripts of the 8 interviews conducted with the identified stakeholders who are directly affected by digital transformation in the case organization.

Following is the snapshot of transcripts of responses received from 8 interviews conducted:

Transcripts #1
Date of Interview: 22-Nov-2022
Duration: 25 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Workstream Leader of Procurement Dept. Age-43/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	I see the below mentioned differences in the employee experience post digitalization: - 1. It has become easier to communicate and collaborate with team. 2. Better work-life balance 3. Hybrid workplace offers more flexibility and opportunities 4. Smooth employee onboarding process 5. No time wasted in battling outdated systems, hence it improves productivity.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes, I think implementation of BPM/NLP/RPA has created a positive impact on user satisfaction.
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	1. Digital transformation mechanisms like BPM/NLP/RPA helps in speeding up tasks that are typically time consuming, hence employees devote more time on pivotal tasks rather than battling with outdated systems. 2. Freed up time is used for problem solving and coming up with innovative ideas which in turn improves overall job satisfaction. 3. Automations helps in eliminating human error which increases operational efficiency 4. When organizations deploy solutions to improve employee experience, they feel valued and it increases job satisfaction.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	Digital transformation has a very positive impact on job fitment and allocation as it omits the errors committed during the manual process, which can have far reaching consequences like not getting desired output, reduced efficiency, lack of job satisfaction, and high attrition rate.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Digital transformation helps in automating or eliminating the manual and repetitive elements of a job which helps in increasing productivity and reducing stress This helps employees in focusing on more challenging tasks. Therefore, I believe digital transformation creates a positive impact on employee creativity.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	1. Proper training for the digital transformation 2. Defining roles and responsibilities for everyone 3. Make sure everyone understands the goals and objective of the transformation
7	Do you see any impact of digital transformation in employee churn rate in future?	Digital transformations can be disruptive for an organization and its employees. The process of transition from one way of doing things to other can sometimes be confusing and stressful and may lead to employee churn. To deal with this there should be proper training sessions and goals and objectives of the transformation should be well defined to the employees.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	When employees are done with the tasks assigned to them and there are no other dependencies on them, they can devote time to cross/up skilling. Also, weekends can be leveraged to upskill and learn new things.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	Omni-channel digital experience definitely saves time for employees and reduce longer office hours up to some extent but I don't think that it saves enough time that can be invested in personal growth.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	I think digital transformation has a very positive impact on overall job satisfaction as digital transformation helps in decreasing the percentage of repetitive tasks and increasing the percentage of interesting and creative tasks. Digitalization also helps in increasing job satisfaction by making work more flexible and by simplifying interactions with colleagues and superiors

Transcripts #2
Date of Interview: 24-Nov-2022
Duration: 20 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Approving Manager of Procurement Dept. Age-47/F

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	This is saving most of our time. Exposure to newer skills and efficient way of working. Connecting people across globe has become much more easier through video conferencing. Focuses more on Well-being of the employee as well as family. As well the employee got quality time to spend with family and also be productive at the same time.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes, absolutely.
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	Flexibility in work. More concentrated and quite working hours . Productivity has increased due to availability of huge data for analysis purpose. Saved lots of time as manual work is reduced.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	Increases knowledge sharing and cross functional knowledge between different teams. Enhances customer insights and customer experience. Stronger Employee engagement. Empowers employees with exposure to technology and variety skillset.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Yes , we have time to learn a new technology as the work speeds up with digital transformation. Can implement the new learnt technology to current project to increase the efficiency and productivity. Exposure to new opportunity.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	Organizational leadership & change management should have a proper analysis, planning and implementation in place. A dry run kind of thing must be scheduled to reduce the fear or resistance from the employee regarding digital transformation. A detailed study must be conducted on employee expectation (through survey, inputs via email etc). Conducting online seminars on latest technology. Workshops and encouraging team activities on various new technology
7	Do you see any impact of digital transformation in employee churn rate in future?	Yes it might affect as few employees may find it difficult to cope up with the speed. Some might feel they are too many expectations from management and too many things on the plate to complete. It maybe complex and uncomfortable for few
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	They can spend weekly few hours for self learning . Can attend online seminar on latest technology. Manage to attend activity workshop which are like fun with learning . For group activities we get some time .
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	Yes it has reduced long working office hours and connect have become more fruitful. Collaboration has increased.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	It a 80 20 experience. It has developed a confidence that work can be done from anywhere , anytime. Productivity has also increased . This gives us more time for concentrated work. Also have a good strike between work life balance.

Transcripts #3
Date of Interview: 24-Nov-2022
Duration: 35 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Category Manager of Procurement Dept. Age-40/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	There has been several improvements as compared to pre digitalization era as far as flexibility is concerned. Employees can work remotely and more efficiently. Documentation has become relatively simpler. Less space is required to store data in digital back ups. Remote working can also help in a better work life balance.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	There are many advantages offered by these processes. For example: NLP: Streamline processes, better understanding of data and a better user satisfaction BPM: Helps in agile development, Less error prone, Data is controlled in a better manner RPA: More accurate and more consistent, Improves Security, Better efficiency And many more
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	Digital transformation has caused smoothening of process for employee fitment and allocation. The data can be assessed more accurately and machine learning and artificial inteeligence can be used to put the right employee at the right place. Loads of data can be assessed and used to reach to a conclusion
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Definitely, Digital transformation creates an area where any employee can apply various tools from all over the world at the same time. It gives a bigger horizon for the person to work on. An employee can learn different things from different parts of the world being in the same location due to digital transformation. This was not possible before this. This gives an employee a reason to look for while working. He can update himself at his own convenience
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	The organizational leadership and management need to make the change smooth. Human nature has a tendency to resist change even if it is for their own benefit. Thus encouraging the employees towards change in a way that it does not seem to be forced. Employees should be encouraged in a stage wise manner to transition to new technology by the higher management.
7	Do you see any impact of digital transformation in employee churn rate in future?	There are certain ways in which digital transformation can be intimidating too. Some employees who feel hard to adapt may think of moving out of the organization. Digitization may also reduce the responsibilities that an employee has to have and can lead to stagnation for him in some instances. This can also be a reason for employee churn.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	This is a phenomenon that is growing in the world with every new technology coming. A person needs to have a routinised time for upgrading himself and some extra time could be devoted to this task in a regular manner. There can be a specific target that can be fixed for a realistic time interval to achieve a certain upskill or goal.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	Yes Omni Channel Digital Experience definitely saves time for employees to invest in personal growth and reduce hours. It takes away the time invested in redundant tasks and thus helps employees to give time to themselves. When you get time there is a possibility that that time can be devoted to personal growth. Ease of access to work can also enhance employee morale.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	Digital Transformation has led to a revolution. We can do a lot of tasks in the amount of time what we used to earlier. Employees have the whole world at their disposal to learn from and upgrade themselves. This I feel has a very positive impact on the job satisfaction front. The processes involved have been streamlined and their structure has improved. This has had an extremely positive impact.

Transcripts #4
Date of Interview: 25-Nov-2022
Duration: 20 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Business User of Procurement Dept. Age-35/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	I think the major changes in employee experience have been speed, security and reliability. High level of business process digitization/ automation/ IT aided optimization has resulted in reduction in manual intervention resulting faster TAT. Due to digitization every process in most organizations from onboarding to orientation to all kinds of forms submission, reimbursement and literally everything else have achieved paperless efficiency. This has reduced turnaround time and also made it easier to consolidate correlate information across org. Owing to digital communication/ conferencing technologies, coupled with drastic improvement of internet bandwidth and reduction of internet cost globally, physical presence has almost been made redundant. This results in employees being able to work seamlessly from any location, not constrained by need to be present physically at office always.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	RPA has helped in achieving data synergy in large enterprises having a lot of legacy systems that cannot be directly integrated using standard integration protocols like SOAP/ ReST etc. NLP, along with other AI technologies, has definitely helped enterprises enable cognitive capabilities to their business processes, resulting in their progress towards achieving intelligent, self-learning and self-adjusting software solutions. BPM as a philosophy has enabled enterprises achieve people-process-data synergies through process optimization powered by BPM tools and technology.
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	Less human intervention in repetitive jobs having determinate outcomes, thus freeing up resource bandwidth for more important work. Employees freed up of the boredom of doing the same monotonous tasks over and over again and are assigned more thought invoking work. Lots of intermediate tasks and decisions being done by system, every unit of work journeys are completed in lesser time, improving overall throughput and letting employees log off early after finishing their work faster.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	With the rudimentary/ repetitive work having been taken care of, by automation/ AI, employees can be aligned to more meaningful human centric work. An obvious consequence will be a need for re-skilling/ cross-skilling/ up-skilling. A possible fallout might be some retrenchment of workforce.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Optimization of work helps employees focus on the strategic part of their work, allowing them to explore new ways of completing an assignment, fueling an innovation centric work culture.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	Organization management and the associated management of cultural resistance to that change often is of strategic importance and it should be the duty of the leadership to alleviate any apprehension in employees' minds and to inspire them into embracing this change, while showing them the huge benefits that this transformation offers.
7	Do you see any impact of digital transformation in employee churn rate in future?	Once the majority of workforce become comfortable with the new normal of digital ways of working, there will be a high propensity of employees – now equipped with new skills – trying to find other employments. The key to retention would be to engage them in meaningful work that trigger their creativity and their strengths, while of course addressing their career aspirations.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	At least 6-8 hours a week (some of it should be from employee's off business hours considering that this is an investment they are making for their own career goals)
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	To some extent yes, considering that the end customers are able to solve certain issues through IVR/ self service channels that otherwise would have warranted human assistance of employees.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	Digital transformation drastically improves employee job satisfaction – if done right. Freeing up employees time, enabling them to invest time in more meaningful work. Gamification and mission-ifying work makes their work experience more engaging and fun. Empowering employees to work from any location (example employee taking workcations) and spending more time with family and doing what they love, and still being fully productive

Transcripts #5
Date of Interview: 25-Nov-2022
Duration: 30 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: ICT/IT Consultant of Procurement Dept. Age-38/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	Employees have an initial resistance to change, but once the confidence is earned, they feel comfortable and positive towards the pros of digitization.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes, the user experience has undergone immense positive change post digital implementation of BPM/NLP/RPA
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	Users have experienced decreased ETA, thereby increasing their efficiency quotient. The erroneous work, leading to rework, has reduced extensively. Reduction in manual input has increased the efficacy of output. Rules and governances in a process that had a possibility of being bypassed previously, have got better imposition due to digitization and automation.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	The initial reaction is mostly resistance to the change and opposition in seeing the benefits of it, but with training and motivation users tend to look at the bright side of the digitization. Usually the users are presented with a software that augments their role with increased productivity, hence the negative impact on job fitment issue is something that I have hardly come across.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	To a certain extent yes, because they start thinking and giving inputs to better the application available. Although they sometimes seem to go overboard with their suggestions which if included might distort the current ways of working. Summary of it, they try to put on their thinking hats to further reduce their manual intervention on the system.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	The leadership and change management team does take the initial apprehensions into account and try to broaden the employee perspectives with enhanced training material and sampling audience for UAT. Usually the UATs and also iterative business demos have been found quite effective in gaining employee confidence in this user journey.
7	Do you see any impact of digital transformation in employee churn rate in future?	None specifically.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	Usually, the training material that is created for the users gives them induction from the scratch and the handholding period covers the rest, so unless the application they receive has a look and feel entirely different from what they have been doing manual, their response in picking up on it is as per estimations.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	Saving time for the employees for sure, because they themselves comment on increase in the volumes of their output.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	More than often the users get over their initial resistance as soon as they get some hands on with the application and realise the pros of it. Unless the software has been designed easy enough for their understanding and use.

Transcripts #6
Date of Interview: 29-Nov-2022
Duration: 20 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Category Manager of Procurement Dept. Age-38/F

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	· Improved productivity · Better work-life balance · Improved flexibility · Faster communication · Easy access to information
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	Overall employee happiness is improved after DT though there was some initial apprehension. Now, they can manage time better & effectively in meaningful work.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	DT will enable employees with resources for cross/up-skilling so it will yield a more skilled resource-base if for the organization need. DT will be able to provide a single platform within the org where the resource availability and demand in different projects can be monitored and managed. The whole allocation process will also be faster due to elimination of manual dependency.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Definitely – A satisfied and engaged employee with access to required knowledge materials and tools with some saved time will be able to look at high-value tasks like coming up with innovative solutions for the business, whether it's finding automation opportunities or planning a transformation project.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	DT itself is a very user engaging and useful resource. So, organization leadership need to make sure that they communicate the benefits clearly to manage any initial apprehension. Post-implementation support will be an important aspect to make it a success. Also, must take into account employee feedback.
7	Do you see any impact of digital transformation in employee churn rate in future?	Organization with better digital employee experience will have higher level of employee retention. To maintain the lower churn rate, organization must make sure that the digital experience provided is seamless and better than the competitors.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	In my opinion, after implementing automation of manual work, the overall productivity expectation/benchmark has also increased, so there may not be much extra time available. Having said that, the digitization makes the cross/up skilling material more readily available and the up-skilling has become ever more important for employees to fit to the job demand. Hence 10-15% of the work time each must use for up-skilling.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	More than saving time, omni-channel experience reduces the hassle of maintaining the list of different sites and login credential for different work. Not sure if Omni-channel saves significant time but overall digital transformation sure do.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	Digital transformation improves overall employee satisfaction by making their job easier, faster communication, ease of access to information, providing flexibility and aid to better performance, resulting in better retention rates, improved profitability, more skilled resources with innovative solutions. Satisfied employees offer word-of-mouth recommendations that boost company reputation.

Transcripts #7
Date of Interview: 30-Nov-2022
Duration: 10 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Approving Manager of Procurement Dept. Age-43/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	1. Multiple touchpoints in case of any kind of queries, 2. Traditional Approaches and less wait time, 3. Time-consuming processes pre-digitalization era etc.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	Yes. 1. Enabling automation techniques of repetitive tasks, 2. Flawless applications, 3. Streamlining processes, 4. Introduction of bots etc.
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	1. Enabling automation techniques of repetitive tasks, 2. Flawless applications, 3. Streamlining processes, 4. Introduction of bots, 5. Immediate solutions to any problem statements, 6. Less turnaround time, 7.Ease in HR process and resource management, 8.Easy resource allocations etc.
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	Automated feedback collection, Analyzing employee's profile and setting the path, Quicker and effective allocation of resources etc.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	Yes, it makes daily work more meaningful and effective and much more quicker & easier.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	Capturing all the inputs that are needed in a much smarter and quicker way, automated processes, smooth feedback collection processes, clear automated communications in turn saving time, quicker solution to any kind of queries/ problem statements etc.
7	Do you see any impact of digital transformation in employee churn rate in future?	Yes, digital transformation is the key to manage the overall turnover in the organization in its hiring and firing process and making the process more effective to achieve complete optimization.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	This depends on the bandwidth of the employee, but, digitalization helped in a faster and effective, upskilling process/ cross skilling process since now that the accessibility to the portals are more integrated and can be done through any medium and anywhere and anytime, as per the need. Also, faster access and logins and crisp learning process eases this whole set of process.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	Yes, omni-channel digital experience is the best possible way to deliver effective, efficient, and meaningful customer interactions.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	Faster and flawless overall user experience.

Transcripts #8
Date of Interview: 29-Nov-2022
Duration: 20 Mins (Approx.) & Mode: Via MS-Teams
Interviewee Profile: Workstream Leader of Procurement Dept. Age-45/M

Question #	Unstructured Questionnaire for Informal Interview over MS-Teams	Response recorded as post-interview Transcripts
1	If you compare with pre-digitalization era, what kind of difference you can see now in the employee experience post digitalization?	Digitalization for sure boosts productivity and can prove cost effective in the long run. Post covid-19 the pace was almost exponential in that sense and digitalization became more prominent as well. With growing technology dominance in personal lives where everything is a click away ; the ease is expected in the workplace as well. Moreso, it might help to achieve a better work-life balance for employees.
2	Do you think digital transformation with the implementation of BPM/NLP/RPA in the Procurement Space, created positive impact on user satisfaction?	It could be very effective for users when the adaptability and environment are wisely handled by the organization. Capability building with increasing technology inclusion will result in good user experience. Else there can be a lot of friction if there is a mismatch especially in less tech savvy groups.
3	If the above answer is Yes, what all are the aspects of improvement that you can see now in employee behavior in terms of time management or operational efficiency or overall job satisfaction?	I think work-life balance plays a critical factor in user satisfaction these days; even more than monetary incentives. Priority has shifted to healthy work environments
4	What do you think about the impact of digital transformation on employee job fitment & allocation?	Due to increasing technologies there is a gap between employee competencies and digital requirements. But I think a 100% would be very rare scenario, fitment can be adopted and tuned to necessary requirements and mixed skillsets.
5	Do you think digital transformation created any impact on employee creativity to make daily work more meaningful?	I think it does shift the attention towards new approaches and services to solve problem statements. All the changes due to digitalization point towards importance of creative thinking and impact it can have in business. For employees of course it inclines towards job content to be part of the process.
6	How organizational leadership & change management played its role in digital transformation while managing employee expectation & initial apprehension or fear or resistance?	Change is certain for sure and organizational culture and collaboration largely helps to bridge that shock whenever a new technology needs to be adopted. Change Management is a very crucial stage as well to help the employees get aware of what is happening and especially why is it happening and mostly how is it going to impact the employees positively.
7	Do you see any impact of digital transformation in employee churn rate in future?	There will be a churn due to reduction of manual tasks , but at the same time the same digital revolution will keep creating new spaces of opportunities. Having diverse skillset would definitely help keep up.
8	How much time employees can devote now in cross/up skilling to contribute more meaningfully after the automation of manual works?	I think 7 hours a week should be accommodable to prepare and educate oneself, cross skill/upskill.
9	Do you think omni-channel digital experience is saving time for employees to invest in personal growth & reduce longer office hours?	It does definitely help to reduce the stress and bring in peace of mind to users/employees as per my observation.
10	Are you planning to measure any employee satisfaction index (if not already done) to analyze the impact of digital transformation on their overall job satisfaction level?	From customer/Users' perspective there is large shift in job satisfaction as all digitalization initiatives have 'Customer Experience' as the major pillar and with collaborative feedbacks, work is done towards achieving it. From an employee perspective, it feels that my role is more key or important.

Qualitative Analysis & Interpretation: Now during the research, overall job satisfaction is decomposed into certain parameters which contributes to overall job satisfaction. In this study, 5 high level parameters are considered which makes overall job satisfaction high or low- Job Efficiency, Job Allocation, Job Fitment, Job Transparency & Job Meaningfulness. This analysis was intended to understand the pattern of impact on each of these afore-mentioned parameters before & after implementation of digital transformation in the area of procurement & sourcing in procurement division. BPM, AI/NLP & RPA based digital transformation should have direct impact on job efficiency as the digitalization automates & streamlines the process scape, on job allocation as the system automatically evaluates employee bandwidth & job rotation, on job fitment as the digitalized system is intelligent enough to route proper job type to rightly skilled person, on job transparency as the system provides holistic view & tracking mechanism of overall job management and on job meaningfulness as this robotic automation is intended to remove mundane repetitive redundant work from employee bucket to take care so that employee can focus on more meaningful complex value added work. Hence the analysis was done on the overall pattern of the impact of digital transformation on these parameters which results in overall job satisfaction. Based on the analysis, it is found that the impact of digital transformation is visibly impacting the employee dynamics in terms of Job Efficiency, Job Allocation, Job Fitment, Job Transparency & Job Meaningfulness. Majority of the interviewees mentioned that though there was initial apprehension around the future of such transformation, but gradually all employees realize & appreciate the value in terms to removal of mundane work, getting for time value & lesser manual error, without any job loss. Analysis revealed that impact of digitalization via BPM is having maximum impact on job efficiency improvement, impact of digitalization via RPA is having maximum impact on meaningful job offer, impact of digitalization via NLP is having maximum impact on automated job fitment process. Similarly, impact of digitalization via BPM is having comparatively lesser impact on meaningful job allocation, impact of digitalization via RPA is having comparatively lesser impact on job allocation, impact of digitalization via NLP is having a comparatively lesser impact on automated job efficiency.

In this study, NVivo Release 12.6.1.970 Trial Version is used to analyze and interpret the collected data & synthesize further in terms of thematic analysis & sentiment analysis. Based on the uploaded PDF file of all the 8 interviews conducted, the NVivo helped in Coding features to identify the dominant codes/Nodes. This process helped in following the deductive thematic analysis approach, which involves coming to the data with some preconceived themes one expects to find reflected there, based on theory or existing knowledge. Here also, the expected impact of digital transformation on employee satisfaction is evaluated further with help of NVivo to augment manual analysis.

VISUALIZE feature of NVivo is applied to get the following:

- **WordCloud** from WordFrequencyQuery Module for each of the interview transcript
- **Chart PDF Coding** to get the Code details related to each transcript uploaded on NVivo. (By Theme & By Sentiment).

- This research leveraged **Coding** feature of NVivo to generate codes from the uploaded transcripts.

- **Explore Diagram of Codes** to get the Code view related to each transcript uploaded on NVivo.
- **Explore Coding reference** to get overall sentiment block hierarchy of the set of interview-transcripts

Following is the NVivo-based analysis of <u>each of the transcripts,</u> where
a) **Wordcloud analysis**,
b) **Attribute-value based coding**,
c) **Coding bar charts** &
d) **Overall explore diagram** are analyzed:

Files Imported in NVivo as Cases:
- Unstructured Questionnaire_With Transcripts 1
- Unstructured Questionnaire_With Transcripts 2
- Unstructured Questionnaire_With Transcripts 3
- Unstructured Questionnaire_With Transcripts 4
- Unstructured Questionnaire_With Transcripts 5
- Unstructured Questionnaire_With Transcripts 6
- Unstructured Questionnaire_With Transcripts 7
- Unstructured Questionnaire_With Transcripts 8

<div align="center">NVivo Analysis - Transcripts #1:</div>

NVivo Analysis - Transcripts #2:

NVivo Analysis - Transcripts #3:

NVivo Analysis - Transcripts #4:

NVivo Analysis - Transcripts #5:

NVivo Analysis - Transcripts #6:

NVivo Analysis - Transcripts #7:

NVivo Analysis - Transcripts #8:

NVivo Analysis - Transcripts- ALL: Word Cloud:
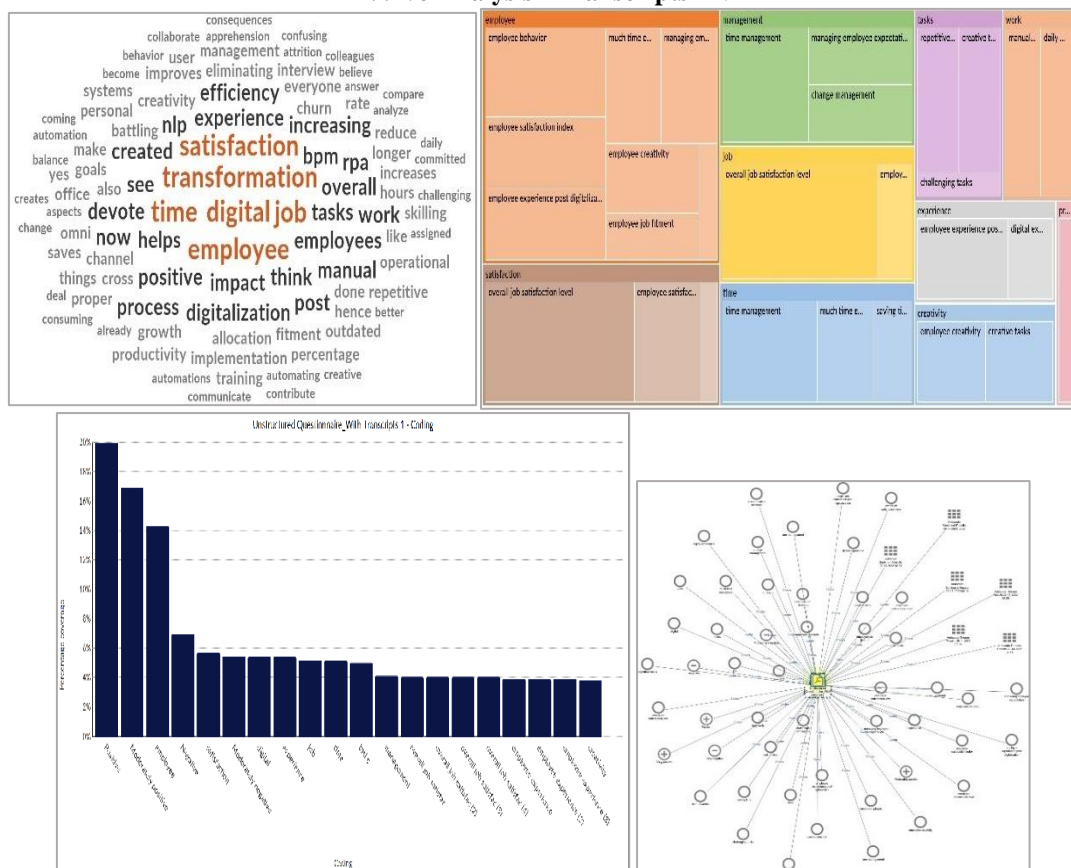
NVivo Analysis – Transcripts- ALL: Theme based Coding:
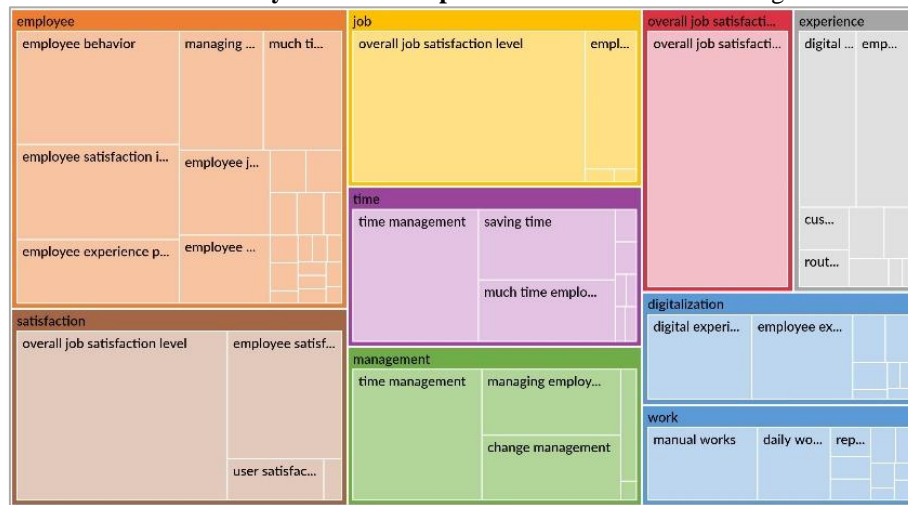
NVivo Analysis - Transcripts- ALL: Sentiment analysis on Coding:

Following is the NVivo-based VISUALIZE analysis of <u>each of the Codes/Nodes, (for all the transcripts)</u> where
a) **Word Cloud Analysis**
b) **Chart Node Coding**
c) **Explore Diagram**
are analyzed for all the Codes as described below:

Codes as Nodes:
- Communication & Collaboration
- Efficiency & Faster Turnaround
- Employee Experience
- Flexibility and Opportunities
- Increased Knowledge base
- Increasing Productivity
- Job Fitment and Allocation
- Problem Solving and Innovation
- Skill Improvement
- Work-life Balance

NVivo Analysis - Code #1: Communication & Collaboration –

NVivo Analysis - Code #2: Efficiency & Faster Turnaround –
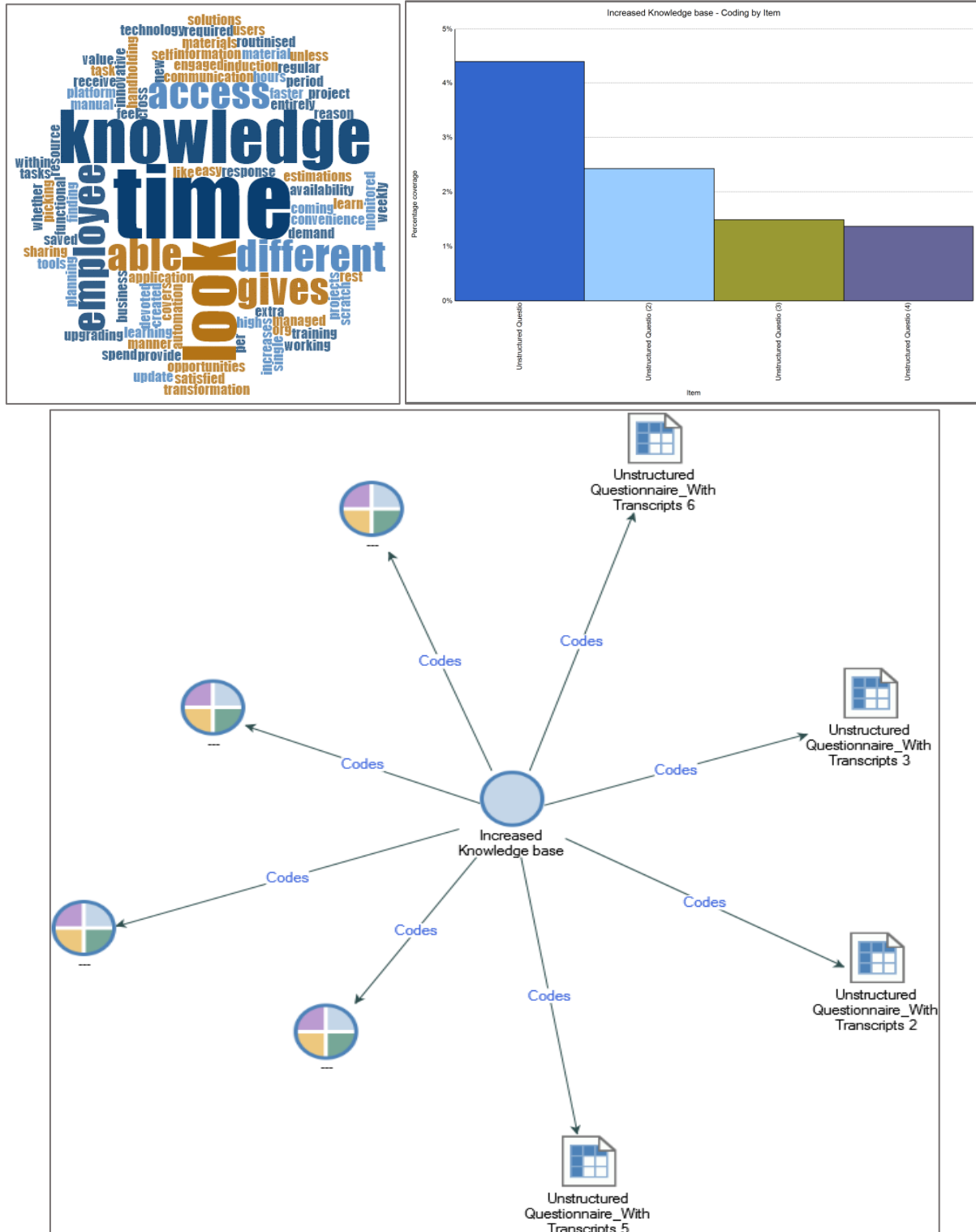
NVivo Analysis - Code #3: Employee Experience –

NVivo Analysis - Code #4: Flexibility and Opportunities –
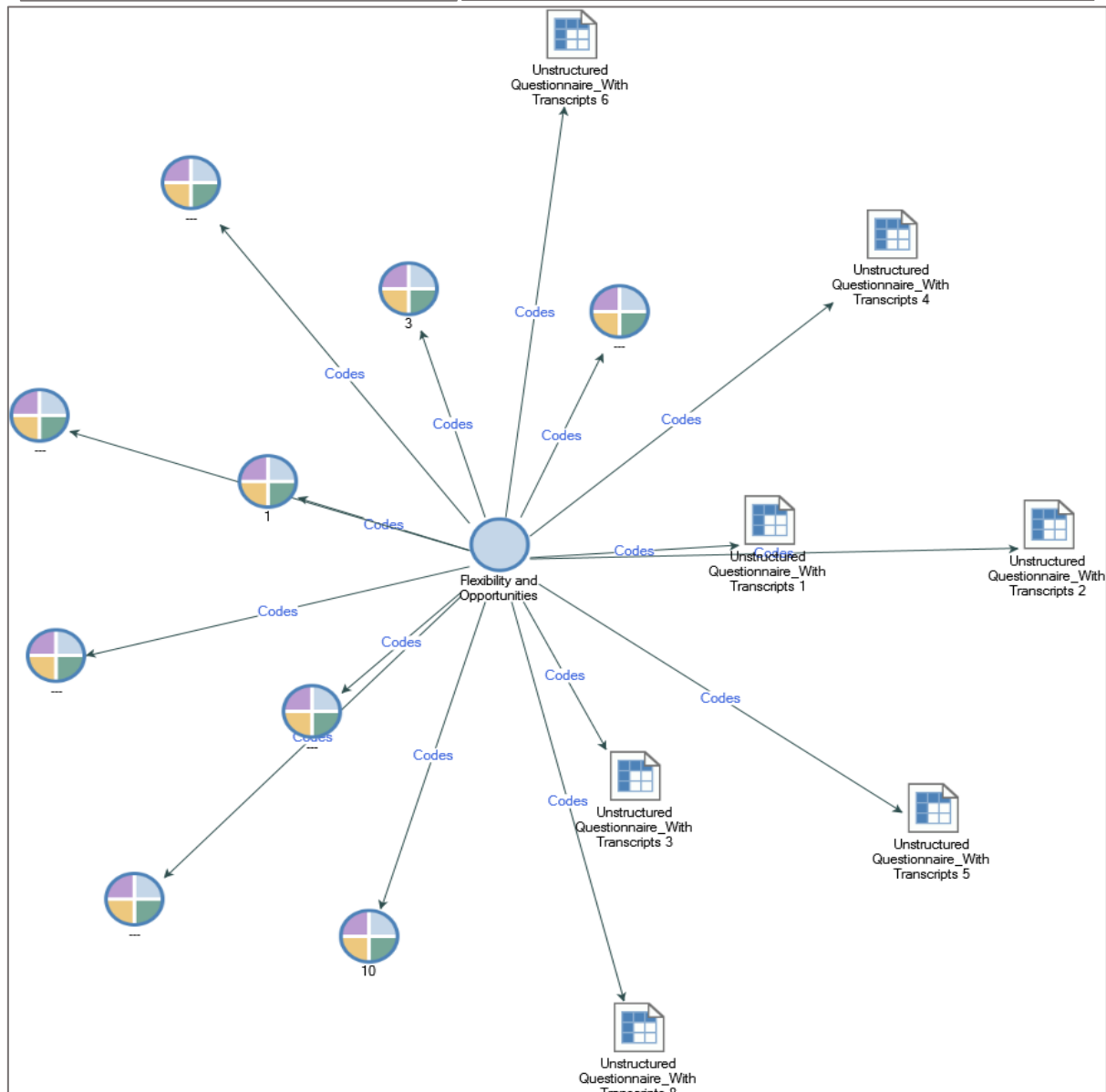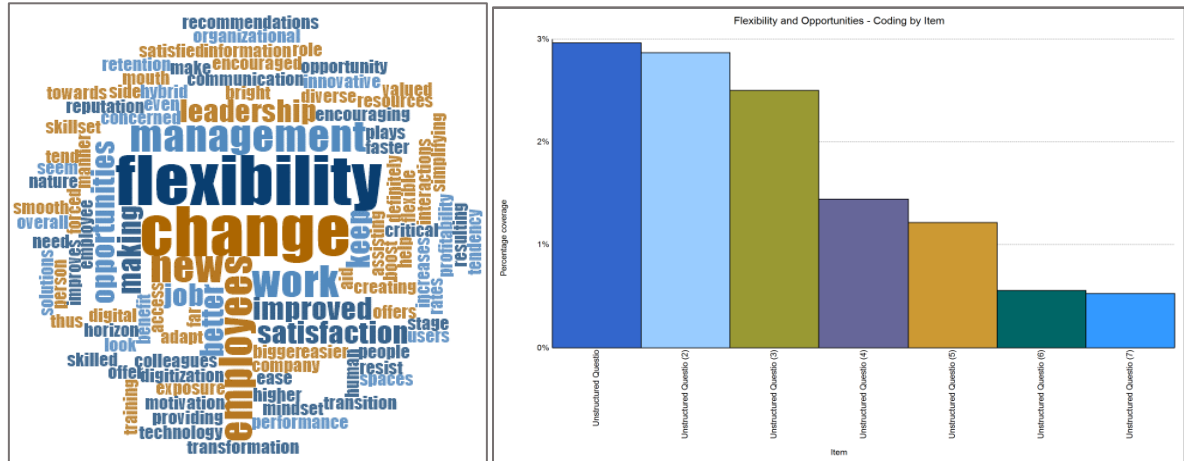
NVivo Analysis - Code #5: Increased Knowledge base –

NVivo Analysis - Code #6: Increasing Productivity –

NVivo Analysis - Code #7: Job Fitment and Allocation –

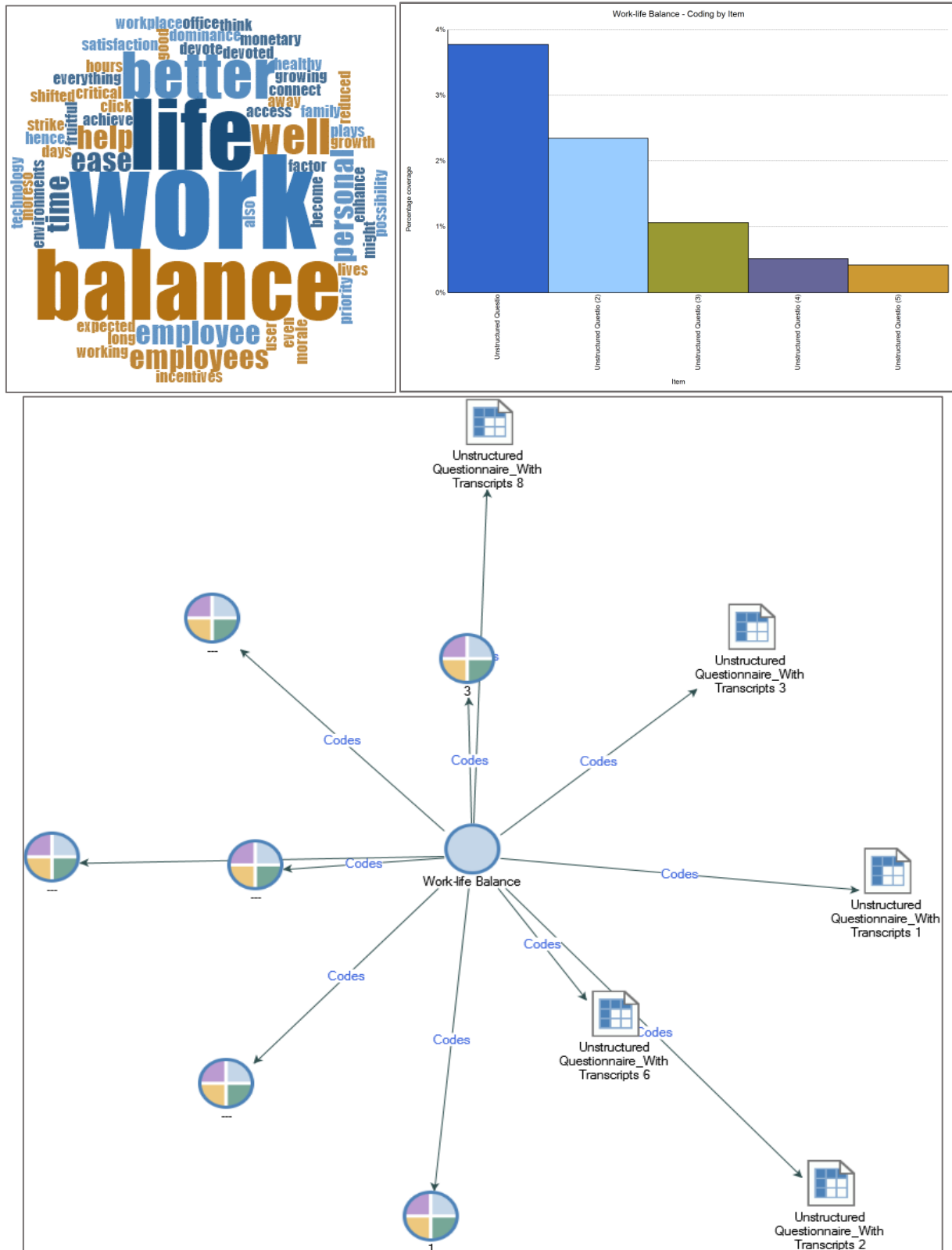**NVivo Analysis - Code #8**: Problem Solving and Innovation –

NVivo Analysis - Code #9: Skill Improvement –
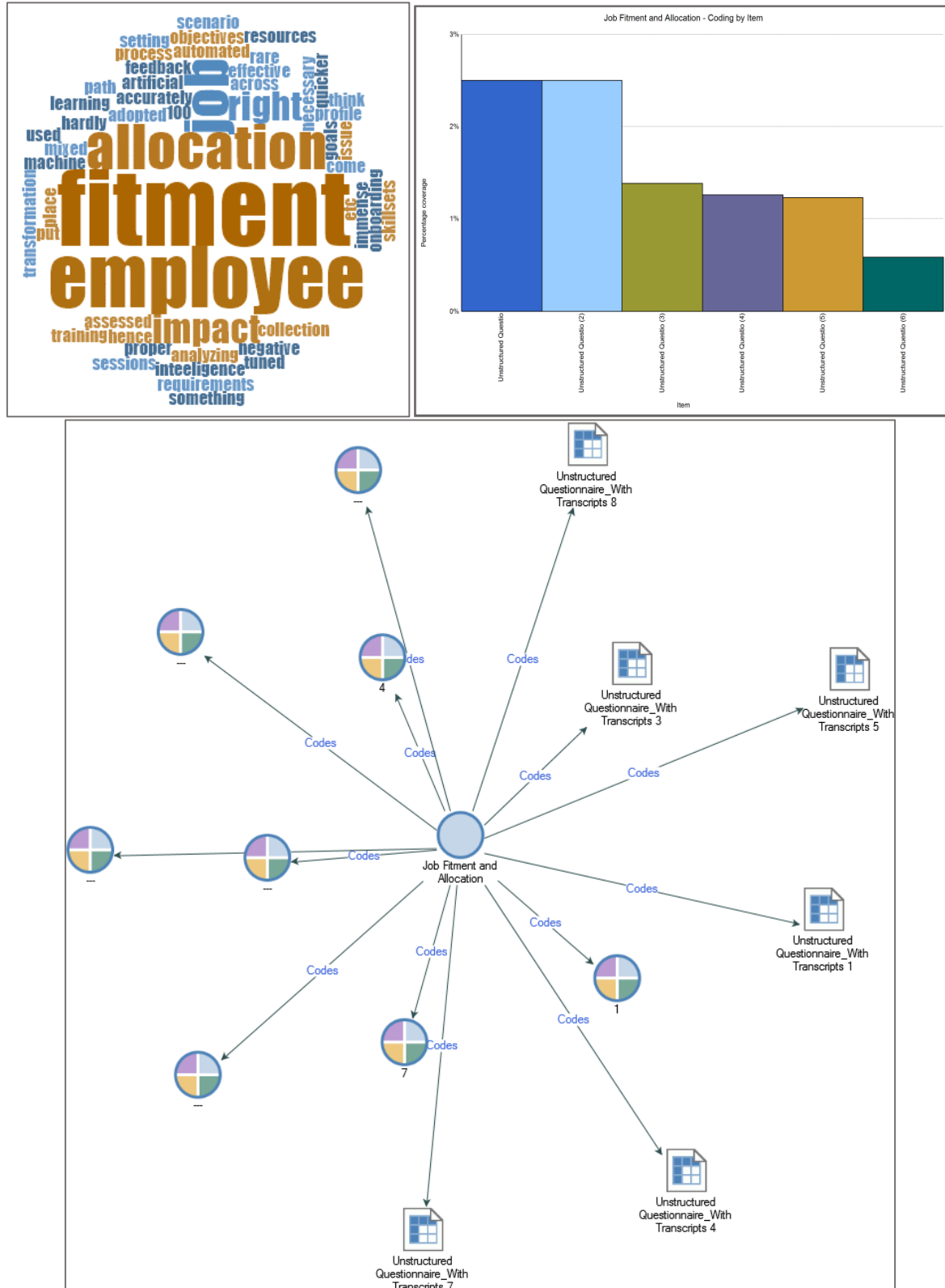
**NVivo Analysis - Code #10**: Work-life Balance –

This analysis of themes & codes from all the 8 transcripts against all the 10 Codes/Nodes identified via NVivo shows that the overall word map emphasizes the following word/phrases: "employee", "job satisfaction", "time management", "digitalization", "positive", "better efficiency", "skilling", "creativity", "leadership". "automation", "fitment", "productivity" etc. Also emphasized that all the identified predominant codes/nodes are positively present in all the transcripts signifying the impact of digital transformation on employee satisfaction.

Also, the Attribute-value based coding analysis reveals that the codes around the central theme evolve around the following: "employee behavior", "employee satisfaction", "time management", "saving time", "digital experience", "effective allocation", "easy resourcing", "meaningfulness", "employee job fitment", "change management", "employee retention", "user experience"., "organization leadership", "remote working", "employee creativity".

Sentiment Coding Reference from NVivo by exploring feature of CODING REFERENCE shows the overall interviewee sentiment towards the impact of digital transformation on employee satisfaction with the approximate following values: Negetive-0%, Neutral- 10%, Moderately Positive - 60%, Very Positive - 30%.

This signifies that the overall interview transcript contains favorable sentiment and positive words/phrases aligned towards meaningful impact of digital transformation on employee satisfaction. Almost all the interviewee agrees that they are finding very or moderately positive impact of digital transformation among the employees of sourcing & procurement department, where the digital transformation engagements are executed. Job rotation, job skill enhancements, work life balance, cross skilling, job alignment etc. are the core areas of positive impact where digital transformation is playing the critical role & significant impact.

Hence, based on the qualitative study conducted in Malaysian Case-Organization procurement division on impact of digital transformation on employee satisfaction is showing very similar result as the other analysis & reports yield. It is evident that efficient technological transformation elevates operational stability and increased employee performance (Gates, 2014).
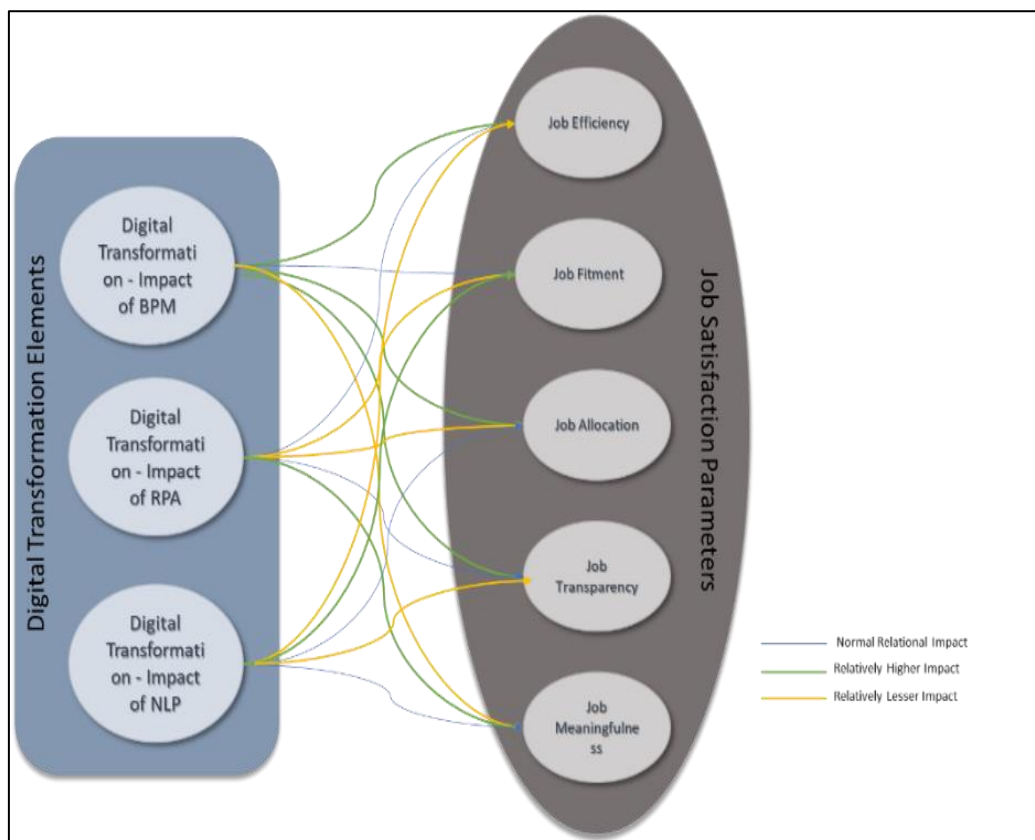
Fig: Relational impact of BPM/NLP/RPA on Job Satisfaction Parameters

The above picture shows the relational impact of digitalization components on job satisfaction components, which emphasizes that Digitalized Procurement & SCM processes support quicker and more effective decision-making & enable employee agility & satisfaction (Dudukalov et. al. 2021). Digital transformation leverages different kinds of digital technologies with the aim to optimize organizational structures, work processes and to generate new business models (Bharadwaj et al. 2013).

Analysis Outcome Summary: The significance of digitalization is primarily in increasing decentralization of value-adding activities (Gunasekaran & Ngai, 2004). Along with these financial & partner relationship-oriented benefits, any organization must focus on employee engagement, effectiveness & satisfaction perspective as well while implementing BPM based digital transformation. Lowes et al., (2015) emphasized that companies implementing automation increased the efficiency, satisfaction and effectiveness of employee workforce, rather than abolishing and as automation engagement continues further, the dependency on highly skilled process owners increases. As per Pegasystems survey, among global executives, 63% say RPA based digital transformation offers significant improvement to business metrics across industries and around the world, reduce up to 45% of overall business costs and most importantly 42% improvement in employee satisfaction. Employees can be redeployed to manage exceptions, solve more complex problems, and take on more strategic & meaningful activities (Lowes & Cannata,2017; Monahan, 2017; Van As, 2018). Digital transformation benefits include speed and fewer errors, which improve overall employee experience (J.L. Hartley, W.J. Sawaya, 2019). RPA based digital transformation can reduce manual errors and perform human tasks faster than human beings, which can allow employees who was previously performing the task, to concentrate on more strategic, value driven and challenging tasks (Asatiani et al., 2016; Alberth et al., 2017). RPA based digital transformation can ensure that employees will have more interesting & motivating work and be engaged in higher value tasks which make more appropriate use of their intelligence, engagement, and creativity.

There is growing evidence, theoretically and practically, suggesting that digital technology based procurement process reengineering can pave the way to transform its functioning approach resulting in cost efficiency, operational and financial performance, competitive advantage, innovation-based employee-centricity, agility, resiliency, traceability, transparency and employee satisfaction (e.g. Koh et al., 2019; Tortorella et al., 2019; Rubbio et al., 2019; Hastig and Sodhi, 2020; Sousa-Zomer et al., 2020; Martinez et al., 2019).

LIMITATIONS & SCOPE FOR FUTURE WORK

Limitations & boundaries of this research work involving in-scope parameters & constructs as mentioned from the context of single case in one country is acknowledged and it is accepted that single case organization sometimes restricts generalizability of findings.

Following are the high-level research boundaries & limitations which can be addressed as future scope of broader research:

- Research is conducted on One Case from Single organization (Malaysian Case-Organization) in one country (Malaysia). There is scope to extend the boundaries to multiple purchasing organizations across multiple geographic locations & varied industry domains.
- Digital transformation perspective includes three major technology drivers in scope - Business Process Management, Robotic Process Automation & Natural Language Processing. Other dimensions of digital transformations are not considered in scope.
- Impact is being measured on single aspect of Job satisfaction Index. No other employee impacts from human resource & leadership perspectives are assessed.
- Sample set of interview participants from Malaysian Case-Organization Procurement division is identified based on their availability, willingness to respond and access of researcher. There is a further scope to evaluate entire organization wide analysis with larger set of stakeholders' samples for conducting more interviews.
- There is limited availability of research materials on impact of digital automation in procurement area on employee job satisfaction. Also, research has limited access to Malaysian Case-Organization specific materials & employees as this research is not endorsed or sponsored by the organization and is being done independently.
- Time limitation of the research is also considered as important factor as this research needs to adhere to stringent completion timeline.
- Analyzing benefits on financial model of HRM and cost saving from employee job effectiveness is not taken into consideration of scope.

As this is formative stage of the research, a deliberate selection has been made to restrict the boundary & scope of research focus to a single case-oriented organization to analyze thoroughly the existence of core concepts of relationship under research propositions.

CONCLUSION

Making a business process model successful on a long run, it needs to enable better collaboration between business and IT division, adopting the fast-evolving business condition, support rapidly varying business processes, appreciate customer demand, confirm IT objectives to be aligned with business strategic plan and be developed and implemented effortlessly with a build-for-change motto.

However, the resource engagement & satisfaction analysis are missing in business process digitalization planning models in most of the cases. For a successful digital implementation overall process, the respective activities and responsibilities should be assigned to proper group of employees so that they can work to improve the process quality as well as the employee job satisfaction.

Digital transformation initiative is capable to bring a clear positive impact on employee satisfaction and on individual job performance. However, resource engagement & satisfaction analysis are missing in business process digitalization planning models in most cases. For a successful digital implementation overall process, the respective activities and responsibilities should be assigned to the proper group of employees so that they can work to improve the process quality as well as employee job satisfaction. There is a direct relationship between the organizational ability to overcome digitalization challenges with enhanced job satisfaction & role fitment and the overall performance of the organization, which can be analyzed in terms of both process efficiencies and organizational capabilities. Digital technologies & modernization not only support and enable processes harmonization but also enable better fitment & utilization of human resources.

Most importantly, digital transformation has direct impact to reduce manual errors and employees can concentrate on more complex strategic and thought-provoking activities. Digital transformation can generate more cost savings and always has the possibility to transform job type from operational to more strategic, lean and flexible, hence increasing overall job satisfaction

Research in this area reveals that digital transformation can generate more cost savings and always has the possibility to transform job types from operational to more strategic, lean and flexible, hence increasing overall job satisfaction. Hence, this overall area remains an interesting focus for management researchers over the last decade.

Contribution to Knowledge: This academic time-bound short research is intended to help Chief Procurement Officer (CPO) office to evaluate what extra value additions that the digital transformation engagement brought in Procurement & Sourcing areas from employee satisfaction perspective apart from tradition way of thinking the benefits from financial savings perspective. Overall contribution of this research is the analysis of qualitative details along with theoretical & literature support for the proposed research assertion that introduction of e-procurement enabled business transformation would play a crucial role in futuristic process automation and enhancing employee engagement. This finding is to alert senior management to concentrate on digitalization activities, which need to be carefully managed & driven so that employee engagement, involvement and satisfaction can be achieved.

Digital transformation in procurement space can bring magical improvement in process KPIs as well as Employee engagement matrix, if the initiative is well planned and accordingly communicated effectively, augmented by employee cross skilling, training and up skilling, so that they don't feel threatened instead feel empowered to get associated with more meaningful & complex work. Thanks to digitalized procurement systems, the organizations can be able to put focus on its employees to get involved in more value-added activities which are the core parameters for the overall growth of the organization. Implementing digitalized platform offers automation of non-core repetitive activities to allow increased involvement in more meaningful non-redundant works.

This will allow procurement team to get redeployed on more strategical actions, like contracts and compliance terms & definition. It is critical to consider the upskilling of personnel and the development & training of multi-skillsets to be able to interact with evolving digital eco system. From these definitions, it is evident that embracing digitalized sourcing process make organizations ready to achieve desired benefits that in turn can generate positive externalities for the environment and society, and positively impact on overall workplace and employees' life. End-user satisfaction is one of

the most critical parameters to measure success of an information system. It is evident that the analysis of the user or employee satisfaction approach reveals the fact that higher level of satisfaction helps in higher level of employee performance. Digitized e-Procurement initiative is capable to bring clear positive impact on employee satisfaction and on individual job performance. Hence it is evident that case study based qualitative analysis shows the similar impact as majority of the theoretical analysis & literature reviews suggest.

Future Recommendations & Conclusion: Regarding the limitations of the research work, it includes research findings that cannot be evaluated across industries & geographies. Therefore, additional case studies across countries & industries are to be considered to improve the validity, coverage & applicability of research findings. Moreover, the regulating & cascading effect of other contextual factors (e.g., Management Rules, Governance Models, Organization Culture, Organizational Change Management, HR Benefit & compensation etc.) on digitally enabled e-procurement systems implementation activities have not been studied with respect to employee job satisfaction. It may also be possible to identify other types of business stakeholders & partner relationships that may impact on job satisfaction post introduction of digitally enabled e-sourcing systems and is needed to be further explored. Yet, based on the analysis of the study, it can recommend Procurement leaders to must become AI & Digital conversant so they can analyze, onboard and direct the professionals who possess the skills to leverage the tools to automate the procurement processes. Without competent staff, it's widely believed it will be nearly impossible for companies to build next-generation strategic sourcing and procurement organizations. To achieve this, the top management must adopt the absorptive capabilities of the organization to ensure the availability of the necessary skills, need for proactive education of employees, promotion of a positive mind-set and communication of the pivotal needs for digitization. Digital transformation in procurement & sourcing has direct implications on job types, job profiles, work organization & environment, hence definitely on the job satisfaction. As a consequence of digitalization, employees will be confronted with transformed work activities that require a wider range of new skills and competencies. Their activities being more automated & interdisciplinary, would also need the resources to gain and nurture skills & competences which are technology-related competences and having foundation on basic skills in Information and Communication Technologies (ICT). Other aspects are behavioral and related to employees' needs, inspirations, and behavior traits. These aspects are more individual and relational and less functional or financial. The competences that endorse digital transition in procurement domain are leadership, communication, decision-making, business process management, critical thinking, negotiation, etc. This competence is required to be introduced by the digitalization of procurement area in multiple layers. For organizations, firstly they should be able to define work profiles aligned with the requirements of procurement digitalization. Organization also must support their employees in the acquisition and the development of key skills to perform redefined activities. In addition, they must be supported & guided by procurement leads, managers and HR departments in the gaining and development of the competences. Lastly, the digitalization of the procurement should be attained while adhering to the performance criteria of the technological project in terms of time, cost, quality and employee satisfaction. Other studies reveal that proper internal communication is having a substantial positive outcome on employee satisfaction and significantly effect internal integration, which in turn impacts external integration. In Malaysian Case-Organization scenario also, they communicated the objectives, intention, procedures very clearly early in the life cycle of the digitalization to avoid any misconception and fear, which helped in better & smooth implementation in digital processes along with transparency & improved employee satisfaction. This helped in avoiding typical organizational resistance to change due to digitalization.

Furthermore, many analysis & studies reveal that employee satisfaction also facilitates the association between internal communication and internal integration. Managers must not highlight only on employee satisfaction solely, but rather should emphasis on communicating with employees as it enables improved satisfaction and amalgamation of digital culture both internally and with partners. This will also help in reducing possibility of organizational friction & resistance to change and embrace digitalization smoothly. It is evident that employee satisfaction has noteworthy influence toward organizational procurement & supply chain performance & vice versa. Digital technologies can improve the employee experience by providing supply chain stakeholders with real time control of processes and transparency to partners & suppliers.

Hence, based on the in-scope Malaysian Case-Organization based qualitative primary data analysis along with detailed secondary research & literature review suggests that if digital transformation can be driven by organization vision of modernization & sustainability with well-defined plan & strategy, then the impact on the employee job satisfaction will definitely be highly positive. This positive inter-relation needs to be understood, assimilated with respect to any organization's vision, so that best outcome can be obtained and this approach and mission should be driven top-down i.e., driven by CPO office, considering the outcome value not only from the financial or process KPI improvement perspective, but from the internal employee engagement, motivation, involvement and satisfaction perspective also. At the end of the day, it is the employee who will bring the change, embrace the change, promote the change via digital transformation,

and not the tool or the technology. Hence, it is crucial to measure & consider the impact of employee job satisfaction with respect to digitalization for organization's better & brighter tomorrow.

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Author Contribution: Conceived and designed the analysis; Collected the data via interview; Contributed data or analysis tools; Performed the analysis; Wrote the paper.

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