

## **EMPLOYEE'S BEHAVIORAL INTENTION TO USE INFORMATION TECHNOLOGY (IT) IN PROCUREMENT IN SELECTED INDUSTRIAL UNITS OF GUJARAT**

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### **Abstract**

*E-procurement is an important aspect for manufacturing companies to improve the buying process in their supply chain while improving the performance of their companies. The aim is to study Employee's behavioral intention to use Information Technology (IT) in procurement system. Descriptive research design used for this study and primary data collected through structured questionnaire by personal survey method. Nonparametric statistics used to measure the influence and strength of the relationship between the independent variables. Significant effect found of gender and designation on the employee's behavioral intention to use Information Technology (IT) in procurement. The companies can successfully implement Information Technology (IT) in procurement if they considered identified variables in this research. In future model can be developed based on identified variables.*

**Keywords:** Behavioral Intention, E-procurement, Information Technology (IT), Procurement

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### **1. Introduction**

Data innovation is assuming a significant job in India today and has changed India's picture from a moderate moving bureaucratic economy to a

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place where there are creative business people. The IT division in India is creating 2.5 million direct occupations. India is currently one of the greatest Information Technology (IT) capitals of the cutting edge world and all the significant players on the planet IT division are available in the nation. The utilization of Information Technology (IT) has made the world modest and through it business exchanges are directed all around at a quicker pace. The period of availability has diminished separations and brought individuals closer. Today numerous organizations use Information Technology as a vital instrument to contend with others (Patel 2017a). Acquisition is the demonstration of obtaining, purchasing products, administrations or works from an outer source, frequently by means of an offering or offer procedure (Patel 2017b). It is favorable that the goods, services or works are appropriate and that they are procured at the best possible cost to meet the needs of the acquirer in terms of quality, quantity, time, and location. The use of information technology in procurement can reduce the cost of a product without affecting the quality and save time in purchasing process.

Theory of Reasoned Action (TRA) congregates beliefs, attitudes, norms, intentions, and behaviours of individuals and asserts that these are all linked. According to this model, a person's behaviour is determined by his/her behavioural intention of performing it. This intention is itself determined by the person's attitudes and his /her subjective norm towards the behaviour proposes.

## **2. Literature Review**

### **2.1 Procurement**

Procurement refers to all activities involved in obtaining items from a suppliers e.g., purchasing, transporting and warehousing the items. Procurement is the important element of Business operation which involves commerce between two or more businesses. From the strategic perspective, the procurement include the entire operations pertaining to

requisitioning, transportation, warehousing, and in bound receiving process (Nevalainen 2001). The main aim of procurement is process efficiency (Aldin, Brehmer, and Johansson 2004). Researchers have listed the five key challenges procurement managers are facing in the increasingly competitive business world. First, Reduce order processing cost and cycle time. Second, provide enterprise-wide access to corporate procurement capabilities. Third, empower desktop requisitioning through employee self-service. Fourth, achieve procurement software integration with company's back office systems. And five, elevating the procurement function to a position of strategic importance within the organization (Kalakota and Robinson 2001).

## **2.2 Information Technology**

Information Technology is assuming a significant job in India today and has changed India's picture from a moderate moving bureaucratic economy to a place that is known for inventive business people. The IT division in India is creating 2.5 million direct jobs. The utilization of Information Technology (IT) has made the world little and through it business exchanges are directed comprehensively at a quicker pace. The period of network has diminished separations and brought individuals closer. Today numerous organizations use Information Technology as a key device to contend with others. Because of the accessibility of Internet innovation organizations have changed the method of buying products and ventures (Patel 2017a). Associations have acquainted an innovation alluded with as e-obtainment. The Organizations that at first embrace the idea of e-obtainment frameworks were Dell, IBM and so forth in the year 1990 (Trauth 2001).

Information Technology (IT) has assisted with comprehending a few issues in the open area, and electronic obtainment (e-acquirement) has been acquainted as a strategy with achieve higher, more worth compelling acquisition frameworks. The execution and use of data innovations powerfully affect business forms. E-obtainment innovation is characterized as use of system advances and practices that encourage trade of data with

the assistance of open or non-open systems (Min and Galle 1999). The degree of Information Technology framework mix between the associations directly affects the reserve funds and advantages on acquirement process. Absence of Information Technology joining has been an imperative on the advantages created through the work of e-obtainment attributable to forms like the need to key data (Min, H., and Galle 2003).

### **2.3 E-Procurement**

The expressions "e-Procurement" and "e-Purchasing" have been utilized interchangeably in numerous purviews, the expression "buying" has a slighter extension. E-Procurement alludes to the utilization of Internet-based (incorporated) data and correspondence advances (ICTs) to complete individual or all phases of the acquirement procedure including search, sourcing, exchange, requesting, receipt, and post-buy survey (Croom and Brandon-Jones 2005). Electronic offering is an electronic form of customary offering process. It convert conventional obtaining, acquisition of products and ventures, gracefully of merchandise and enterprises into the Electronic procedure, for example, e-offering, e-granting, e-sell off, e-sourcing, by utilizing Internet. E-offering is essentially an articulation used to depict the dispersal and receipt of delicate data, sign of enthusiasm for offering, receipt of delicate reports, accommodation of delicate total and last choice of effective delicate for contracts by means of the web (Betts et al. 2006).

### **2.4 E-Procurement benefits**

Purchasers showed that the transformation from paper-based to e-buying brought about a decrease of buying value, decrease at stock level, a 5-day decrease in process duration, a US\$77 sparing in per order regulatory expense (Brack 2000). The execution of e-Procurement activities ought to be viewed as a push to improve the acquirement objectives, which typically incorporate quality; practicality; cost; limiting business, money related and specialized dangers; boosting rivalry; and looking after respectability (Thai,

K. & Grimm 2000). In a comparable vein, CGEC has distinguished cost, quality, program the executives progress measures (on-schedule, on-financial plan, and issue the executives), process execution factors, and Return on Investment as the most significant estimations (Vaidya, Sajeev, and Callender 2006).

### **3. Research Objective**

To study the employee's behavioral intention to use Information Technology (IT) for procurement system

### **4. Research Methodology**

The current study is a descriptive study with objective to study behavioral intention to use IT in e-procurement. For this study the Primary data was collected through structured questionnaire by using personal survey method. The sampling unite is an employees of the organization. The sampling method used for the survey is non probability convenience sampling methods. Data have been collected from 71 companies from the entire Gujarat which includes South Gujarat, North Gujarat, Central Gujarat and Shaurashtra region.

### **5. Data Analysis**

**5.1** Mann-Whitney U test is executed with an objective to understand the significant difference between employee's behavioral intention to use IT in e-procurement and gender.

**Ho:** There is no significant difference of employee's behavioral intention to use IT in e-procurement across the Gender

**H1:** There is significant difference of employee's behavioral intention to use IT in e-procurement across the Gender

**Table 1: Test Statistics**

	<b>Mann-Whitney U</b>	<b>Wilcoxon W</b>	<b>Z</b>	<b>Asymp. Sig. (2-tailed)</b>	<b>Null Hypothesis</b>
I find IT easy to use	433.000	686.000	-1.425	.154	Do not Rejected
Learning how to use IT is easy for me	326.500	579.500	-2.958	.003	Rejected
It is easy to become skillful by using IT	492.000	745.000	-.683	.494	Do not Rejected
It is easy for me to remember how to perform tasks using the IT	359.000	612.000	-2.451	.014	Rejected
IT provides helpful guidance in performing tasks	383.000	636.000	-2.105	.035	Rejected
IT makes it easier to do my job	391.500	644.500	-2.041	.041	Rejected
Use of IT gives me better control over my work	334.000	587.000	-2.860	.004	Rejected
Use of IT saves my time	358.000	611.000	-2.591	.010	Rejected
IT can Increases my productivity	411.000	664.000	-1.713	.087	Do not Rejected
Enhances my effectiveness on performing tasks	419.000	672.000	-1.611	.107	Do not Rejected
Use of IT is a good idea	515.500	768.500	-.329	.742	Do not Rejected
Interacting with IT is often Frustrating	525.500	778.500	-.176	.860	Do not Rejected
IT is rigid and inflexible	388.500	1613.500	-1.945	.052	Do not Rejected
I find IT cumbersome to use	427.500	1652.500	-1.520	.129	Do not Rejected

I am positive toward use of IT	264.000	517.000	-3.649	.000	Rejected
I feel confident to use of IT	229.500	482.500	-4.139	.000	Rejected
I have the necessary skills for using IT system	349.000	602.000	-2.553	.011	Rejected
I have no difficulty accessing and using IT	282.000	535.000	-3.472	.001	Rejected
I can get related information while using the IT	374.500	627.500	-2.356	.018	Rejected
The IT can be linked to or integrated with information from other systems	289.000	542.000	-3.510	.000	Rejected
a. Grouping Variable: What is your gender?					

Table shows the p-value of “Learning how to use IT is easy for me” is 0.003, “It is easy for me to remember how to perform tasks using the IT” is 0.014, “IT provides helpful guidance in performing tasks” is 0.035, “IT makes it easier to do my job” is 0.041, “Use of IT gives me better control over my work” is 0.004, “Use of IT saves my time” is 0.010, “I am positive toward use of IT” is 0.000, “I feel confident to use of IT” is 0.000, “I have the necessary skills for using IT system” is 0.011, “I have no difficulty accessing and using IT” is 0.001, “I can get related information while using the IT” is 0.018 and “The IT can be linked to or integrated with information from other systems” is 0.000. The p values of these statements are less than 0.05, therefore the null hypotheses rejected. So for these statements, employee’s behavioral intentions to use IT in e-procurement across the Gender are significant. For other statements, we fail to reject the null hypothesis.

**Table 2: Ranks**

What is your gender?		N	Mean Rank	Sum of Ranks
I find IT easy to use	Female	22	31.18	686.00
	Male	49	38.16	1870.00
	Total	71		
Learning how to use IT is easy for me	Female	22	26.34	579.50
	Male	49	40.34	1976.50
	Total	71		
It is easy to become skilful by using IT	Female	22	33.86	745.00
	Male	49	36.96	1811.00
	Total	71		
It is easy for me to remember how to perform tasks using the IT	Female	22	27.82	612.00
	Male	49	39.67	1944.00
	Total	71		
IT provides helpful guidance in performing tasks	Female	22	28.91	636.00
	Male	49	39.18	1920.00
	Total	71		
IT makes it easier to do my job	Female	22	29.30	644.50
	Male	49	39.01	1911.50
	Total	71		
Use of IT gives me better control over my work	Female	22	26.68	587.00
	Male	49	40.18	1969.00
	Total	71		
Use of IT saves my time	Female	22	27.77	611.00
	Male	49	39.69	1945.00
	Total	71		
IT can Increases my productivity	Female	22	30.18	664.00
	Male	49	38.61	1892.00
	Total	71		
Enhances my effectiveness on performing tasks	Female	22	30.55	672.00
	Male	49	38.45	1884.00
	Total	71		
Use of IT is a good idea	Female	22	34.93	768.50



	Male	49	36.48	1787.50
	Total	71		
Interacting with IT is often Frustrating	Female	22	35.39	778.50
	Male	49	36.28	1777.50
	Total	71		
IT is rigid and inflexible	Female	22	42.84	942.50
	Male	49	32.93	1613.50
	Total	71		
I find IT cumbersome to use	Female	22	41.07	903.50
	Male	49	33.72	1652.50
	Total	71		
I am positive toward use of IT	Female	22	23.50	517.00
	Male	49	41.61	2039.00
	Total	71		
I feel confident to use of IT	Female	22	21.93	482.50
	Male	49	42.32	2073.50
	Total	71		
I have the necessary skills for using IT system	Female	22	27.36	602.00
	Male	49	39.88	1954.00
	Total	71		
I have no difficulty accessing and using IT	Female	22	24.32	535.00
	Male	49	41.24	2021.00
	Total	71		
I can get related information while using the IT	Female	22	28.52	627.50
	Male	49	39.36	1928.50
	Total	71		
The IT can be linked to or integrated with information from other systems	Female	22	24.64	542.00
	Male	49	41.10	2014.00
	Total	71		

From the mean rank in table, it can be concluded that following factors that influence employee's behavioral intention to use IT in e-procurement : Learning how to use IT is easy for me, It is easy for me to remember how to perform tasks using the IT, IT provides helpful guidance in performing tasks, IT makes it easier to do my job, Use of IT gives me better control

over my work, Use of IT saves my time, I am positive toward use of IT, I feel confident to use of IT, I have the necessary skills for using IT system, I have no difficulty accessing and using IT, I can get related information while using the IT and IT can be linked to or integrated with information from other systems were most agreed by Male employees of the selected Industrial unit of Gujarat.

**5.2 Kruskal-Wallis** test is executed with an objective to understand the significant difference between employee's behavioral intention to use IT in e-procurement and Respondent's designation.

**Ho:** There is no significant difference of employee's behavioral intention to use IT in e-procurement across designation

**H1:** There is a significant difference of the employee's behavioral intention to use IT in e-procurement across designation

**Table 3: Test Statistics**

	Chi-Square	df	Asymp. Sig.	Null Hypothesis
I find IT easy to use	17.241	5	.004	Rejected
Learning how to use IT is easy for me	12.192	5	.032	Rejected
It is easy to become skilful by using IT	11.114	5	.049	Rejected
It is easy for me to remember how to perform tasks using the IT	7.158	5	.209	Do not Rejected
IT provides helpful guidance in performing tasks	6.880	5	.230	Do not Rejected
IT makes it easier to do my job	9.173	5	.102	Do not Rejected
Use of IT gives me better control over my work	7.127	5	.211	Do not Rejected
Use of IT saves my time	7.458	5	.189	Do not Rejected
IT can Increases my productivity.	7.784	5	.169	Do not Rejected
Enhances my effectiveness on performing tasks	6.272	5	.281	Do not Rejected

Use of IT is a good idea	7.087	5	.214	Do not Rejected
Interacting with IT is often Frustrating.	1.542	5	.908	Do not Rejected
IT is rigid and inflexible.	5.792	5	.327	Do not Rejected
I find IT cumbersome to use	7.275	5	.201	Do not Rejected
I am positive toward use of IT	9.658	5	.086	Do not Rejected
I feel confident to use of IT	5.778	5	.328	Do not Rejected
I have the necessary skills for using IT system	4.601	5	.466	Do not Rejected
I have no difficulty accessing and using IT	6.777	5	.238	Do not Rejected
I can get related information while using the IT	10.971	5	.052	Do not Rejected
The IT can be linked to or integrated with information from other systems	5.485	5	.360	Do not Rejected
a. Kruskal Wallis Test				
b. Grouping Variable: Which of the following best describes your Current Occupation?				

Table shows the p-value of “I find IT easy to use” is 0.004, “Learning how to use IT is easy for me” is 0.032 and “It is easy to become skilful by using IT” is 0.049. For these statements the p values are less than 0.05 and therefore null hypotheses rejected. So, for these statements employee’s behavioral intention to use IT in e-procurement across the Occupation are significant. For other statements, we fail to reject the null hypothesis.

**Table 4: Ranks**

		N	Mean Rank
I find IT easy to use	Professional	14	39.71
	Manager	29	33.78
	Senior Executive	19	29.16
	Supervisor/Clerical Officer	3	59.00
	Skilled and Semi skilled	1	2.00
	Others	5	57.50

	Total	71	
Learning how to use IT is easy for me	Professional	14	42.57
	Manager	29	34.79
	Senior Executive	19	29.18
	Supervisor/Clerical Officer	3	43.00
	Skilled and Semi skilled	1	3.50
	Others	5	52.80
	Total	71	
It is easy to become skillful by using IT	Professional	14	43.07
	Manager	29	38.83
	Senior Executive	19	28.05
	Supervisor/Clerical Officer	3	32.00
	Skilled and Semi skilled	1	1.00
	Others	5	39.40
	Total	71	

Table shows the mean rank of factors that will influence the employee's behavioral intention to use IT in e-procurement. It can be concluded that "I find IT easy to use" is strongly agreed by Supervisor/Clerical Officer (Mean rank is 59.00), "Learning how to use IT is easy for me" is strongly agreed by others (Mean rank is 52.80) followed by Supervisor/Clerical Officer (mean rank is 43) and Professionals (mean rank is 42.57). And, "It is easy to become skillful by using IT" is strongly agreed by Professional (mean rank is 43.07).

## 6. Findings

This study addresses a gap in knowledge by investigating Employee's behavioral intention to use Information Technology (IT) in procurement in selected Industrial Units of Gujarat. The finding of this study will help Researchers, Managers and e-procurement vendors in several ways. The main outcomes of this study have been retrieved from measuring the employee's behavioral intention to use IT in e-procurement. For this, hypothesized associations were set up to Study the Employee's behavioral

intention to use IT in procurement across the Gender and their Designation. This study was conducted in 71 manufacturing units in the State of Gujarat. There is significant difference found in employee's behavioral intention to use of IT in e-procurement across the Gender. Male employees of the 71 Industrial unit of Gujarat have most agreed that the IT is easy for them to perform their duties, they have necessary skills for using IT system, they are positive and confident towards the use of IT, they haven't any difficulty in accessing and able to get all related information while using it and they were able to link their It system with other system.

There is significant difference found in employee's behavioral intention to use of IT in e-procurement across their Designation. Supervisor / Clerical Officer and Professional have strongly agreed that they found IT easy to use. Professional also have strongly agreed that it easy to become skilful by using IT

## **7. Conclusion**

Based on Mann-Whitney U Test, 12 factors out of 20 were significant. Hence for these statements, there is a significant effect of gender on factors that will influence the employee's behavioural intention to use Information Technology (IT) in e-procurement. Male Employees having enough opportunity for influence the employee's behavioural intention to use IT in e-procurement. Kruskal Wallis Test is performed to find the significance effect of occupation on factors that influence the employee's behavioural intention to use IT in e-procurement, 3 factors out of 20 were significant, hence for these statements, and there is a significant effect of occupation on factors that influence the employee's behavioural intention to use IT in e-procurement. The companies can successfully implement Information Technology (IT) in procurement if they considered the identified variables in this research. In future, model can be developed based on identified variables.

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