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CONTENTS

A Factorial Evaluation of Commuters' Satisfaction on Urban Mobility – An Indian Perspective

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Abstract

Major Indian cities experience traffic choking from early morning, and commuters face extreme difficulty in reaching their destinations. Many surveys and empirical research results concluded with loads of suggestions for the government and transport agencies in India in terms of reducing traffic congestion and raising the commuters' satisfaction. It is observed that travelling during late night in major Indian cities is also equally precarious and problem-inviting. This paper explored the problems faced by commuters travelling during late night in Bengaluru. The paper brought out the main findings of a field survey (that was conducted during late night) on commuters travelling by cabs as well as by public and private transport. Convenience sampling was used to select 120 respondents, and the data were collected through a structured questionnaire. Responses were taken randomly from the commuters during the night from both commuters and drivers. The study observed 19 statistically significant variables out of 32 variables selected from previous studies and a pilot study that was conducted, which influenced the satisfaction of commuters travelling in the city of Bengaluru. These variables were further grouped under 10 factors. The study used multivariate analytical tools to obtain results regarding the perception of commuters on travelling satisfaction. Interestingly, the respondents were not found to be safety conscious in the city of Bengaluru and were found to be less aware about safety while travelling, especially at late night.

Keywords : transport modes, commuters' safety, public transportation, road transportation, late night transportation

JEL Classification: H54, H10, H11, H19, N7, R41

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Travelling everyday within a city is an important aspect of our lives that demands a lot of our valuable time. Commuting during odd hours in Bengaluru is even more difficult as travelling during the day. This paper analyzes the difficulties of the commuters travelling by road either by own vehicle or by rented cabs and public transportation during late night and early morning. Major Indian cities are not suitable for safe and comfortable commuting for the locals as well as for migrant workers. In Bengaluru, dwellers travel frequently between home and work-place either by government/private buses, metro trains, own vehicles, and taxicabs. Regardless of timings and destination of travel, it has been noted that individuals are exposed to differentiated levels of risk of crime (Hägerstrand, 1972). Transport nodes may be defined as roads and those places along the

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road where people come together to embark or disembark on transportation in order to reach their destination. Even after commuters opt for a means of transport, they have to encounter various hitches like safety issues for women or non-availability of necessary or emergency possessions as most of the stores in Bengaluru are closed after 11 pm. In Bengaluru, which is the hub of information technology and software business in India with a floating population, the transportation facilities are far from adequate. Night life in Bengaluru is extended, but there is an absence of a reliable transport system during the night. BMTC (Bangalore Metropolitan Transport Corporation) being a major public transport system in Bengaluru does not operate after 10 pm, which is a major hindrance to the night travellers of Bengaluru.

People in Bengaluru spend most of their time travelling. Bengaluru's IT and other industrial sectors are flourishing rapidly. These establishments require providing services to their clients all over the world 24 ×7, which requires employees in Bengaluru to work night-shifts. This brings the need for providing efficient transportation facilities round the clock. Absence of a reliable transport system during the night is a major problem, particularly for women commuters. Numerous surveys have been conducted around the world on commuters' problems during the peak hours. However, research on commuters' problems and grievances during the night is not documented, which encouraged us to select this relevant topic for survey and analysis. This study involves identifying the travel related expectations of road commuters during night time. The study involves suggesting the extended possibilities of measures that can be implemented to improve commuting at night in Bengaluru.

Review of Literature

Commuting has become inevitable for working professionals in Bengaluru. Due to heavy traffic and commuters wasting quality time, it leads to stress and loss of productivity. It also drives dissatisfaction from the residential location (Koslowsky, 1997) to the work place. In a study conducted by Bureau of Labor Statistics, United States, published in September 1999 , it was concluded that as transportation costs increase, family budgets come under strain. Regrettably, the nature of public investment and development patterns is not sufficient enough, due to which families have to rely on their personal vehicles to reach offices, stores, doctor's offices, and to run life's other daily errands. Even with relatively good density of public buses, private cabs, metro trains, and autorickshaws in Bengaluru, a middle income group family spends about 20% of its income on commuting costs. The situation becomes worse while travelling during late night or very early morning. According to a study, commuters report physiological symptoms such as tiredness, stiffness in muscles and joints, lower back pain, and various psychological symptoms such as anger, nervousness, tension, negative mood, and difficulty in focusing attention. For users of public transportation, these problems mainly arise from unreliability of services and delays. For car users, these problems generally arise from traffic volume and driving behavior of other road users (Koslowsky, Aizer, & Krausz, 1996 ; Lyons & Chatterjee, 2008).

In a city like Bengaluru, lack of proper time schedule of public transport, poor time management, and huge number of commuter rush every day is major drawback in the transport system. Around 48 lakh commuters use the public transport system in the city to commute every day and ,therefore, commuters in such a huge number need a common forum. Common forums are need of the hour due to a number of reasons, including high fares and sexual harassment of women while commuting. Emre and Elci (2015), in their empirical work, investigated the commuting related problems in the workplace, which revealed that commuters found long distance commuting very much stressful and it affected their productivity. Their study concluded that cost effective travelling always carried a positivity to the workplace. In various studies, it was found that stress level, travelling experience, driver and companion behaviours are some of the important factors, which influenced the commuters' satisfaction levels.

Goswami, Kumar, and George (2015) arrived at a conclusion that commuters found very less street light on the road which made them feel unsafe while travelling during the night. Also, implementing public transport during the night would motivate them to travel without any hesitation during the night. The authors signified the involvement of local government in improving the commuting experience.

Patankar (1991) identified major problems faced by passengers during their travel and concluded that the behaviour of the crew members was very important in improving the commuting experience. Cleanliness of the vehicle was also very important to improve the satisfaction level of the commuters. Along with this, punctuality was also another important factor, which influenced commuters, for example, a delay in pick up and drop affected commuters' perception towards the travelling experience. Advani and Tiwari (2005) determined that travel demand in India is increasing rapidly, but there are insufficient transport facilities available to meet the demand. Due to increase in private vehicles, the public transport providers are not able to provide good services to the commuters as the number of people using public transportation is decreasing. Evans and Wener (2007) examined the impact of environmental stress and concluded that exposure to stressors such as traffic congestion could have serious implications, such as causing motivational deficiency. The negative effects of an environmental stressor are more pronounced when there is no control or perceived control over the situation, as is the case with traffic congestion. Stress induced by traffic congestion has also been linked to increased absenteeism, which may lead to low productivity and low efficiency in tired workers (Bhat & Sardesai, 2006).

Professionals in major Indian cities today are living in quite a challenging environment. In major metropolitan cities, traffic blockades are very common, which affects the commuters' health and further leads to traffic accidents. In Bangalore and other major cities in India, traffic accidents have become a critical area of concern and pose a severe mobility hazard. In view of the above, trends and dimensions of road traffic accidents in India need to be addressed so that stressed road traffic management mechanisms can be improved to mitigate the risk on the road (Sandhu, 2012). Roy, Bandyopadhyay, Das, Batabyal, and Pal (2013) stated in their work the importance of innovative and creative technologies such as : monitoring systems using GPS technology, dynamic vehicle routing system based on online map service, etc. With innovative technologies, traffic congestion detection can be improved and unpleasant happenings on the roads can be avoided.

Sufficient literature on the problems encountered by night commuters is not available in the Indian context, especially with reference to the city of Bengaluru. To avoid traffic congestion, which leads to a bad experience for the commuters, the Police department in the city of Delhi is working on a four-point strategy: Improving implementation of traffic regulations, ensuring road safety education, developing engineering solutions, and formulating viable enforcement strategies with an object to make commuter's travelling a pleasant experience (Choudhury & Gupta, 2015). In view of the above empirical findings, it is imperative to research further on the commuter's satisfaction while commuting daily in a metropolitan city in India and come out with suggestions for solutions.

Based on the above research gap, three objectives have been selected for the current study :

(1) To study the existing literature on commuters' problems while travelling by public transport,

(2) To measure the impact of satisfaction with respect to mode of travel, purpose of travel, and companion to travel by road,

(3) To analyze and suggest the factors influencing commuters commuting by road during early morning and late night.

Research Issues and Hypotheses

Empirical evidence on demographic categorization on the basis of mode of transport, purpose of travelling, timing

of travelling, co - travellers has not been addressed considerably. Various attributes in terms of problems faced by commuters has been documented by previous researchers, for example, psychology related, stress related, safety related, but issues related to availability of basic amenities, basic medical emergencies, information-related services on vehicle and cab drivers, etc., need to be tested with reference to the city of Bengaluru. The present study needs to be viewed as a humble step in the direction of building reliable and valid database about the commuters' sentiments towards satisfaction while travelling during late night or early morning in Bengaluru. Assessment of the commuters' satisfaction with other constructs under investigation is also one of the major objectives of the present study.

A theoretical backdrop of the relationship between commuters' satisfaction with other constructs and the accompanying hypotheses are as follows :

✥ **H0₁ :** Mode of transport does not influence the satisfaction level of passengers travelling during late night and early morning.

✥ **H0₂ :** Mode of transport does not influence the safety perception of passengers travelling during late night and early morning.

✥ **H0₃ :** Thirty-two variables as selected for the study do not significantly influence the satisfaction level of the passengers travelling during late night hours by road transportation.

Research Methodology

A pilot survey was done by considering cab drivers, night shift employees, as well as auto rickshaw drivers, including passengers travelling as respondents during late night and early morning hours in the city of Bengaluru. The data collected from the pilot survey was grouped under different heads based on the type of factor. Among the total respondents, 41% said that they faced safety issues while commuting in odd hours, 22% faced some kind of medical emergencies, 15% of the respondents faced some problems in availability of basic amenities, and 22% of the respondents felt that they wanted better commuter forums and some solution from the managements of the transport agencies. Based on the outcomes of the pilot survey, a final questionnaire was prepared to meet the objectives of the study. Primary data were collected from late night commuters who used public transportation, cabs, and those who were using their own vehicles. Responses were collected from highways, near railway station, bus stops, airport, major hospitals, Electronics City - where workers work for IT companies, and industrial areas - where workers travel to reach for the night shift. The study used convenient sampling method and responses were collected during January 10, 2018 to April 30, 2018. Selection of a sample was challenging since Bengaluru city has a huge population. Considering the cost and time constraints, a sample size of 120 respondents participated in the study. The data were collected for the study from 11 pm to 6 am. Based on the objectives defined, three hypotheses that have been created were tested with the help of the following statistical tools - descriptive statistics, ANOVA, principal component analysis, and multiple regression.

For the study, it is imperative to understand the late night travelers, which was very challenging in terms of getting appropriate reliable data. From various secondary sources, we collected data related to the number of vehicles plying in Bengaluru. We also considered the modes of transport and their presence on roads on a daily basis. On account of time, cost, and resource (people) constraints, a small sample size was considered, which may be taken as a scope for further research.

Defining demographics (refer to Table 1) is imperative to project the respondents considered for the study. Taking this further, the present study has categorized commuters, travelling during wee hours, according to the objectives. Based on the scholarly papers and news articles reviewed and opinions during pilot survey, it is summarized that problems to commuters travelling in wee hours are not affected by their age, income, and gender.

Table 1. Variables Explained

Sl.No	Independent Variables	Description
1	SOS Option in an Application	During early 2015, Uber Technologies Inc. (Indian division) introduced a technology which supports SOS option in cabs. This system is already coming in force in few developed nations. We received a very positive feedback from the respondents on SOS option in cabs while driving late in night.
2	Vehicle's Comfort and Safety	During pilot survey, commuters travelling during late night preferred comfort and safety inside and outside the vehicle and opined to make available a quality certificate for the passengers which will ensure the vehicle is safe and comfortable to travel. Gubbins (1988) defined quality within the context of public transport as specifically referring to the way in which a transport organization looks after the passengers in its care during a journey.
3	Quality Check for Vehicle's Technical Soundness	Technical soundness is vital in any journey by road, especially at night. Travelers shared their experiences and opined that their safety and satisfaction will significantly positively have influenced if they are provided with certificate of vehicle's technical soundness.
4	Driver's Basic Medical Knowledge	During pilot survey, when late night travelers were asked their opinion on the driver's basic (first-aid) knowledge and his skill on how to handle a minor accident, majority of the respondents agreed to include this variable in our research. Respondents felt that it will decrease the initial stress level of passengers after a minor accident.
5	Drivers' Technical Knowledge	Vehicle breakdown while commuting during 11pm to 6am can be a nightmarish experience, and which is happening too often. Driver's technical knowledge on change of tires, knowledge of minor repair, minor engine issues, and battery heat up-coolant issues can extensively effect the commuters' satisfaction.
6	Driver's Locational Knowledge	The driver's locational knowledge of Bengaluru city without relying on Global Positioning System (GPS) will be an added catalyst to drive commuters' satisfaction.
7	Location Tracking Through Text Messages	This option was used by the commuters who were not using smart phones. Transport services providers constantly send messages of the travelling location till they reach the destination.
8	Cleanliness of the Vehicle	Waiting time, cleanliness, and comfort are shown to be the public transport variables that users most valued, but the degree to which they are valued varies according to the category of user (Dell'Olio, Ibeas, & Cecin, 2010).
9	Ratings of the Driver	High ratings of a cab driver signifies the level of trust. Previous rating information availability is a major driver of passengers' satisfaction level.
10	Driver Information (such as number of accidents encountered; health status of driver, etc.)	Excess mental and physical stress of cab driver can influence driving performance and increase crash likelihood. The level of stress can also vary based on different driving conditions. Pilot survey findings also confirmed this factor as a significant one (Hill & Boyle, 2007).
11	Private Pay and Parking	Frequent night travelers, including drivers, voted for the option of parking their private vehicle safely on payment basis.
12	Access to Nearest Food Stores	Access to nearest authentic food stores during 11pm to 6am, especially while travelling for a long time would also drive the satisfaction level, as suggested by the commuters in the pilot survey.
13	Availability of Petrol/ Diesel Cans in Emergency	Sometimes, this nasty situation may give pain while travelling during 11pm to 6am. Some designated places within the network of the transporter may supply small quantity of petrol and diesel, which may increase the level of safety and satisfaction of commuters.
14	Availability of Repairing Services	Majority of the respondents mentioned that commuters' satisfaction will be influenced if vehicle repairing facility is available in case of emergency breakdown.
15	Care Taker for Old and Disabled	Many studies have focused on the disabled. However, less research has been devoted to the specific area such as public transport terminals. A person accompanying an aged person or disabled people while travelling alone during late night or early morning could be a very essential service, especially to unload the luggage, help to cross the road, and take care of them during long distance travelling (Soltani, Sham, Awang, & Yaman, 2012).

16	Availability of Emergency Lodging Facilities	Commuting during 11 pm to 6 am can be unpleasant in case the vehicle breaks down due to technical fault. Respondents suggested that transporters (cab service providers) should help to provide boarding and lodging facility within their network hotels.
17	Rescue Service (Documents Forgotten or Lost)	It surfaced from the interview with commuters that they may forget to carry important documents while travelling to airports/railway station, etc. In such circumstances, if a facility is offered by cab service providers to pick up and drop of those left out important documents, things, cards etc., it would greatly enhance the satisfaction level of night travelers.
18	Public Urinals (Male and Female)	This variable was included due to the responses from women travelers. While driving and commuting, locating the public urinals is difficult. Suggestions came in pilot survey that such facility arrangement by cab services partnering with other agencies will make the late night travel comfortable.
19	Satellite Medicare	If access to certain small satellite medicine counters are available throughout late night and are networked with cab services, then it will give the passengers a sense of security and safety.
20	Emergency Access to Nearby Hospitals	The option of access to the nearest specialty hospitals in case of emergency when majority of the medical centers are either closed or do not address emergency calls.
21	Accessibility to Nearest Pharmacy	During 11pm to 6am, majority of the pharmacies are found to be closed. Drivers and passengers both expressed that if transporters have network with 24×7 pharmacies, it will give them feel of safety and satisfaction.
22	First Aid Box Inside Vehicle	First aid kit is a mandatory requirement for any vehicle, but it was found to be violated by transporters, compromising with the safety of the passengers. This factor was found by authors influencing the present study.
23	Availability of Doctors During Emergencies	Commuters, especially kids and senior citizens, are always vulnerable and prone to face medical emergencies. During such circumstances, availability of doctors play a prominent role. Respondents shared their views on having network of doctors and nurses who are willing to accept the emergency calls. So, this is being considered for testing the satisfaction of night travelers.
24	24/7 Ambulance for Passengers	Based on the experiences of many late night travelers, it surfaced during pilot survey that availability of ambulance services in major highway / city junctions within the limits of Bengaluru city would impact the commuters' satisfaction.
25	Availability of Calling Facility from Vehicles	Majority of the women commuters voted for availability of calling facility within the commuting vehicle during odd hours. Though such facility has been implemented in developed nations, but still, in India, it is in the planning stage. This is found to be a variable to have a positive impact on the commuting experience.
26	Government Transport Availability During Late Night and Early Morning	Government transport in a city like Bengaluru has proved to a necessity for lower / middle class commuting population. This variable has been considered to capture the perception of those class of travelers.
27	Prompt in Arrival After Booking	In absence of government transport during late night and very early morning hours in Bengaluru city, the commuters have to depend on the private transport options like cab services. Pilot survey and initial recording of respondents' views concluded that prompt arrival of the vehicle at the right time and at the right place is very much required for women and aged travelers. Overall, PT users see the service attributes : on-time performance, travel speed, and service frequency as the most important, followed by personnel/driver behavior and vehicle tidiness. A generic policy aimed at achieving these attributes may yield favourable results with respect to satisfaction (Mouwen, 2015).
28	Transparency of Prices	It is evidently known that the service providers charge comparatively higher prices in odd hours to commuters as compared to people travelling when the sky is light. There is lack of transparency in pricing not only by unorganized autorickshaws plying in Indian cities like Bengaluru, but also by organized cab services organizations. This variable will exhibit how far it impacts the commuting experience of commuters during odd hours. Rothenberger (2015) proposed that fairness of service provider's prices affected commuter judgment and their satisfaction levels.

29	**Prepaid Auto/Taxi- Near Major Bus / Rail Stations/ Airport**	Prepaid cab options, as regulated by government rates, are very much helpful, especially for commuters coming to Bengaluru city via flight or trains from other states during late night.
30	**Increase in Night Patrolling**	In the recent decades, Bengaluru city has transformed into a pool of people who hail from vivid cultures and various parts of India. These people also form a considerable part of commuters commuting in odd hours within the city. Increase in night patrolling by police team will help drivers and commuters travelling during late night/early morning. Levitt (1997) suggested that a 10% increase in deployment of police officers during odd hours leads to reduction of around 3% in crime rates.
31	**Language Skills of Drivers**	In the recent decades, Bengaluru has transformed into a pool of people who hail from vivid cultures and various parts of Indian states. These people also form a considerable part of commuters commuting in odd hours within the city. Driver's knowledge of national and international languages will give the feel of satisfaction to commuters.
32	**Forum for Commuter Redressal for Improvement and Resolving Problems**	Harassment and exploitation of passengers is another problem faced by the commuters commuting during odd hours. These problems can be addressed by specific commuter's forums in association with Government of India and states.

The following are the demographic categorization of commuters. For the current study, (a) mode of transport, (b) purpose of travelling, (c) timing of travelling, and (d) co-travelers have been considered as demographic categorization.

Analysis and Results

A survey was conducted during January 10, 2018 to April 30, 2018 to analyze the reliability and confirm the internal consistency of the questionnaire. The questionnaire was subjected to reliability test using Cronbach's alpha scale. According to Matzler, Würtele, and Renzl (2006), the reliability and validity of a measurement instrument/scale can be tested by looking at the reliability of individual items and the convergent validity of the measures associated with individual constructs as shown in the Table 2 and Table 3. To achieve the objective number, Cronbach's α was used to measure the questionnaire's consistency. The overall coefficient was found to be 0.89, which exceeds the minimal recommendation, that is, 0.70. Therefore, the viability and validity of the instrument is deemed to be sufficient.

To examine the appropriateness and sample adequacy of data collected from commuters, Bartlett's test of sphericity and Kaiser-Meyer Olkin (KMO) test were applied. The approximate chi-square statistic is 1721.6 with 496 degrees of freedom, which is significant at 0.000 levels (Table 2). The KMO statistic (0.769) is also higher (>0.5). Hence, factor analysis is considered as an appropriate technique for further analysis of data. For testing of hypothesis $H0_1$, F - test (one tail) two-sample for variances has been applied as shown in the Tables 4 and 5.

Since F - statistics value (1.65) is more than F-critical value (1.35) with a degree of freedom of 119 and also as the p - value is less than 0.05, therefore, the null hypothesis ($H0_1$) is rejected. So, it can be interpreted that mode of transport significantly influences the satisfaction level of the commuters. With respect to testing the hypothesis

Table 2. Test of Validity and Reliability

		N	%	N of Items	Cronbach's Alpha
Cases	Valid	120	100	32 variables identified	.890
	Excluded	0	.0		
	Total	120	100.0		

Table 3. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.769
Bartlett's Test of Sphericity	Approx. Chi-Square	1721.631
	Df	496
	Sig.	.000

Table 4. *F* - Test : Two - Sample for Variances (Between Mode of Transport and Satisfaction Level)		
	Type	**Sat**
Mean	2.358333333	2.866666667
Variance	2.080602241	1.259383754
Observations	120	120
Df	119	119
F ratio calculated	1.652079626	
$P(F <= f)$ one-tail	0.003279804	
F Critical one-tail	1.353610209	

Table 5. *F* - Test : Two - Sample for Variances (Between Mode of Transport and Safety Perception)		
	Type	**Safety**
Mean	2.358333333	3.041667
Variance	2.080602241	1.687325
Observations	120	120
Df	119	119
F	1.233077402	
$P(F <= f)$ one-tail	0.127284398	
F Critical one-tail	1.353610209	

$H0_2$, since *F* - statistics value (1.23) is less than *F* - critical value (1.35) with a degree of freedom of 119, and also, as the *p* - value is more than 0.05, therefore, the null hypothesis ($H0_2$) is accepted. So, it can be interpreted that mode of transport does not influence the satisfaction levels of commuters with respect to safety.

The total variance as shown in Table 6 conveys the results of initial Eigen values as well as the total variance values extracted from sum of squared loadings. Based on the Eigen value 1, 10 groups have been formed, which are highly correlated amongst themselves. The cumulative results show that 70.26% variance is explained by the 10 loaded factors (Table 6).

The component matrix table (Table 7) indicates the matrix results of the components as per principal component analysis. Only 10 factors out of 32 loaded variables have been extracted. The extracted 10 factors represent the most significant factors influencing the satisfaction perception of the commuters. Each statement is cross evaluated with these values to identify the best fit and 19 significant variables are as follows :

(a) Vehicle's Technical Soundness, (b) Driver's Technical Knowledge, (c) Driver's Location Knowledge, (d) Driver's Information, (e) Access to Food Store, (f) Availability of Petrol/Diesel Can, (g) Availability of Repairing Service, (h) Availability of Caretaker, (i) Emergency Lodging Facility, (j) Rescue Service, (k) Public Urinals, (l) Satellite Medicare, (m) Accessibility to Pharmacy, (n) First-Aid Box in Vehicle, (o) Availability of

Table 6. Variance Explanation Table

Total Variance Explained						
Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	8.352	26.101	26.101	8.352	26.101	26.101
2	2.600	8.124	34.225	2.600	8.124	34.225
3	2.166	6.769	40.994	2.166	6.769	40.994
4	1.840	5.749	46.742	1.840	5.749	46.742
5	1.684	5.264	52.006	1.684	5.264	52.006
6	1.332	4.162	56.168	1.332	4.162	56.168
7	1.262	3.943	60.111	1.262	3.943	60.111
8	1.173	3.667	63.777	1.173	3.667	63.777
9	1.047	3.272	67.049	1.047	3.272	67.049
10	1.028	3.211	70.260	1.028	3.211	70.260

Extraction Method: Principal Component Analysis.

Table 7. Principal Component Matrix

	Components									
	1	2	3	4	5	6	7	8	9	10
	Vehicle Satisfaction	Driver's Profile	Basic Commodities	Service and Pricing	Helper Service	Emergency Rescue Service	Public Convenience	Health Care	Redressal	Govt. Support
1. SOS Option	.118	.404	-.221	-.214	.271	-.233	-.225	-.013	.156	-.163
2. Vehicle's Comfort and Safety	.202	.265	-.052	.089	.294	.111	.453	.001	-.231	-.009
3. Vehicle's Technical Soundness	.704	.114	-.072	.084	-.316	-.189	.084	-.191	.132	-.019
4. Driver's Medical Knowledge	.507	.223	-.025	.315	.120	-.228	-.171	.342	-.092	-.199
5. Driver's Technical Knowledge	.354	.783	-.289	-.127	-.172	.038	-.049	-.063	-.110	.244
6. Driver's Location Knowledge	.292	-.716	-.438	.527	.154	.091	-.108	-.099	.147	-.343
7. Location Tracking	.319	-.394	-.077	.451	.023	.293	.188	-.224	.000	-.026
8. Vehicle's Cleanliness	.429	-.591	.065	.063	-.153	-.147	.062	.104	-.055	.430
9. Driver's Rating	.527	-.361	.072	-.021	-.203	.459	-.084	-.155	.126	.106
10. Driver's Information	.506	-.735	.096	.023	-.302	.194	-.036	.220	.301	.024
11. Private Parking	.374	-.233	.016	.346	.248	.160	.200	-.061	-.184	.139
12. Access to Food Store	.314	.208	-.714	-.223	.017	.038	.020	-.201	-.092	.095
13. Availability of Petrol/Diesel Can	.209	-.282	.709	.029	-.175	-.383	.084	-.012	.160	-.161
14. Availability of Repair Service	.570	-.483	.129	-.759	-.054	-.389	.127	.008	.084	-.136
15. Availability of Caretaker	.237	.142	.293	.401	.397	-.128	-.146	-.005	.156	.681
16. Emergency Lodging Facility	.460	-.141	-.095	-.068	.767	.235	.263	-.193	.305	-.227
17. Rescue Service	.448	.027	.282	.055	.758	-.030	-.040	.187	.233	.076
18. Public Urinals	.319	.078	.264	.048	-.295	-.036	.097	-.020	-.802	-.041
19. Satellite Medicare	.476	-.232	-.675	-.189	.412	.656	.107	.172	-.111	-.174
20. Emergency Access to Hospital	.463	-.398	.196	-.246	.277	.204	-.233	-.012	-.328	-.040
21. Accessibility to Pharmacy	.331	-.275	.374	-.190	.099	-.757	.023	.111	-.395	-.079
22. First-Aid Box in Vehicle	.153	.272	.540	.326	.318	-.689	-.159	-.110	-.087	.102
23. Availability of Doctors	.233	.353	.547	-.387	.187	.170	-.083	-.247	.164	-.058
24. Round the Clock Ambulance	.458	.232	.539	-.239	-.085	.225	-.006	-.042	.018	-.157
25. Calling Facility in Vehicle	.385	.076	-.056	.266	.023	.340	-.339	.510	.017	-.118
26. Availability of Govt. Transport	.424	.032	-.426	-.211	-.018	-.005	-.640	.013	-.251	.080
27. Prompt Arrival of Vehicle	.749	.399	-.081	-.086	-.259	.129	-.045	.060	-.126	-.011
28. Transparency in Price	.547	.334	-.033	.780	.005	-.331	-.015	-.326	-.053	-.042
29. Prepaid Option	.125	-.188	-.424	-.291	.361	-.071	-.264	-.189	.233	.244
30. Increase in Night Patrolling	.220	.229	-.196	-.298	.287	-.013	.707	.414	.326	.174
31. Driver's Language Skills	.513	.490	-.051	.083	-.288	.078	.185	.190	-.009	.172
32. Commuter Redressal Forums	.502	.309	-.291	.067	-.036	.119	-.130	-.702	.000	.064

Note. Extraction Method: Principal Component Analysis. [a] 10 components extracted.

Govt. Transport, (p) Prompt Arrival of Vehicle, (q) Transparency in Price, (r) Increase in Night Patrolling, (s) Commuter Redressal Forums.

These 19 variables are averaged and grouped under 10 unique groups as per the principal component analysis results. With these 10 groups, multiple regression has been performed to find the significance of each influencing groups on the satisfaction of commuters in odd hours. Based on the R-square value of 0.88, it can be explained as 88% of changes in the level of commuters' satisfaction. Next, we test the null hypothesis $H0_3$. It is evident (Table 7) that 32 variables have been grouped under 10 factors, which have been further studied for level of significant influence upon the satisfaction levels of the passengers.

Considering the p - values in the multiple regression, out of 10, only eight factors are found to be significantly influencing the satisfaction levels (Table 9). The ANOVA results (Table 8) suggest that variables considered for regression are suitable. The following variables have been identified as independent for the multiple regression analysis : (a) Vehicle Satisfaction, (b) Driver's Profile, (c) Basic Commodities, (d) Service and Pricing, (e) Helper Service, (f) Emergency Rescue Service, (g) Public Convenience, (h) Health Care, (i) Redressal, and (j)

Table 8. Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.938[a]	.880	.869	.34208

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.611	10	9.361	79.995	.000[b]
	Residual	12.755	109	.117		
	Total	106.367	119			

a. Dependent Variable: Passenger Satisfaction

b. Predictors: (Constant), Redressal, Helper Service, Health Care, Govt. Support, Public Convenience, Driver's Profile, Pricing Service, Emergency Rescue Service, Vehicle Satisfaction, Basic Commodities

Table 9. Beta Coefficient of Passengers' Satisfaction (Dependent Variable)

Model		Unstandardized Coefficients		T Statistics	Sig.	Collinearity Statistics	
		Beta value	Std. Error			Tolerance	VIF
1	(Constant)	-1.721	.234	-7.343	.000		
	Vehicle Satisfaction (VS)	.335	.057	5.894	.000	.373	2.684
	Driver's Profile (DP)	.124	.058	2.143	.034	.581	1.721
	Basic Commodities (BC)	.163	.065	2.485	.014	.323	3.092
	Pricing Service(PS)	.127	.051	2.508	.014	.468	2.138
	Helper Service (HS)	.037	.031	1.200	.033	.845	1.184
	Emergency Rescue Service (ERC)	-.012	.051	-.242	.809	.565	1.770
	Public Convenience (PC)	.073	.045	1.647	.103	.486	2.057
	Health Care (HC)	.119	.065	1.818	.002	.567	1.763
	Govt. Support (GS)	.092	.038	2.436	.016	.681	1.468
	Redressal (R)	.275	.047	5.886	.000	.478	2.093

Government Support. The dependent variable for the purpose of applying multiple regression model is "satisfaction of passengers."

The following groups (variable) considered for running regression are found to be significant because the *p* - values are less than 0.05. The intensity of the influence of the satisfaction level on the passengers can be identified by the unstandardized beta values. Considering the regression results, out of 32 variables, only 10 factors are considered for multiple regression analysis. The null hypothesis $H0_3$ is rejected, but Emergency Rescue Service (ERC) and Public Convenience (PC) are found to be accepted. Based on the outcome of the results, considering beta values and significance value (at 95% confidence level), the following regression equation can be formulated :

Regression Model for Passengers' Satisfaction :

Commuter's Satisfaction = -1.721+ 0.335*VS + 0.124*DP + 0.163*BC + 0.127*PS + 0.037*HS - 0.012*ERC + 0.073*PC + 0.119*HC + 0.092*GS + 0.275*R

Findings and Suggestions

The findings from the study epitomize safety, transparency in prices, comfort level of commuters, effective time management, and cleanliness of vehicle, a common forum for commuters to address their problems and find solutions. Factors that influence the satisfaction level of commuters commuting during night were extracted from the analysis. From this study, it is observed that public transportation in Bengaluru is required to be extended even during the night as night commuters felt safer commuting in a bus along with a crowd than in unknown cabs or autos. Particularly for women commuters during night, it is safer to travel by public transport. This would resolve the major problems of night commuting. The study identifies that one of the significant factors which influences the commuting experience of commuters during odd hours is the Availability of Public Urinals. Regression analysis confirms that Vehicle Satisfaction, Driver's Profile, Basic Commodities, Pricing Service, Helper Service, Emergency Rescue Service, Public Convenience, Health Care, Govt. Support, and Redressal in terms of implementation of traffic regulations are found to be imperative for overall satisfaction of passengers. The city administration must take necessary action in building sufficient number of public urinals. The analysis also exposes the lack of police surveillance during odd hours in Bengaluru city, which leads to many uncertainties and unhealthy experiences, majorly for women and lone commuters during odd hours.

Managerial Perspectives on Government Intervention

Commuters who were working in nights shifts and travelling in odd hours raised the issue of unavailability of public transport. Lack of government transport and sole reliance on private transport makes their commuting into interior areas much difficult. Hence, the government must take necessary action to provide connectivity to these interior areas. As observed during our interactions, drivers of public transport too agreed that a common complaint was over-charging of prices. This is an issue where the agencies must act ethically and charge nominal prices instead of overcharging commuters by taking advantage of the fact that it is an odd hour. Another significant factor which is said to influence the commuters commuting in odd hours are the commuter redressal forums, which would help them in raising their voice against uncertainties while commuting during odd hours. Therefore, the government must take necessary action in setting up more commuter forums. We derived an opinion that there could be a great possibility in exploring an entrepreneurial initiative to serve the commuters' community. The respondents at time of the interview opined that they were looking forward to an initiative either from a private or from state sponsored agency to address the range of issues while commuting late at night.

Limitations of the Study and Scope for Further Research

Only 120 respondents participated in the study at few places in the city of Bengaluru during late night. Future studies can be conducted in other cities with a larger sample of respondents from the commuter's fraternity - people who regularly travel at night - and studies can explore the range of problems faced by them. Overall satisfaction of commuters travelling in the night for official, business, and other purposes is very important for wholesome development of the economy without compromising on the social security concerns.

End Notes

(1) Auto rickshaws are three wheeler motorized cycles for transportation of goods and also carry passengers. They are available in South Asian countries and are also available in few African, European, and South American countries.

(2) Bartlett's test of sphericity indicates whether the correlation matrix is an identity matrix which would further indicate that the variables considered influencing the passenger's satisfaction.

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Inclinations of Saudi Arabian and Malaysian Students Towards Entrepreneurship

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Abstract

This study investigated the cognitive factors (such as social norms, attitudes, and perceived behaviors) and other factors (such as risk taking, innovation, and perceived risk) that led to entrepreneurial intention amongst university students in Malaysia and Saudi Arabia. Data were collected via a questionnaire survey involving 416 students in these two countries. Overall, the results clearly showed significant differences between the two groups of respondents in all the entrepreneurship intention variables examined in this study. The results suggested that business knowledge played a very important role in determining entrepreneurial intention amongst the students of both countries. As for the differences, amongst the Malaysian students, perceived risk of doing business had medium significant effect on intention, followed by innovation and business knowledge ; whereas, amongst the Saudi Arabian students, business attractiveness was found to have very strong significant effects on intention, followed by readiness to do business and business knowledge. Some practical implications of the findings are also suggested.

Keywords : entrepreneurship intention, theory of planned behavior, risk taking, perceived risk, innovation

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In many countries, nurturing entrepreneurship through teaching and training has received increasing attention from various universities. New trends in globalization, global competition, social development, corporate downsizing, and the emergence of knowledge-based economy across the world has resulted in more attention being given to entrepreneurship. Recently, entrepreneurship has been given serious attention due to its importance on economic growth, job creation, sources of innovation and productivity (Urbano & Aparicio, 2015). Thus, developing countries like Malaysia and Saudi Arabia inspire graduate and undergraduate students to be involved in entrepreneurship and consider entrepreneurship as a career choice. Entrepreneurial activities play quite an important role in promoting cost - effective progression, output, and societal expansion; and this has led many academicians, practitioners, and policymakers to recognize their importance. Due to the development of mass higher education in Saudi Arabia and Malaysia, the employment issue of university graduates is becoming more and more important. Related to this context, it is essential for us to determine if our existing university students are inclined towards entrepreneurship. Therefore, it is important for us to know the factors that influence a student's

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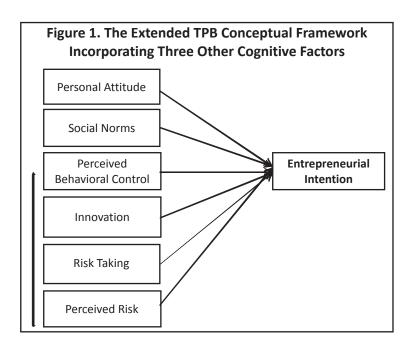****Professor,* Department of Management, College of Economics & Political Science, Sultan Qaboos University, P. O. Box 20, Al-Khoud, PC 123, Muscat, Oman. E-mail: mzain@squ.edu.om

intentions to launch a new business. Very few research studies have focused on this issue where entrepreneurship is viewed as a very significant contributor to economic growth and development (Fayolle & Liñán, 2014 ; Karimi, Biemans, Lans, Chizari, & Mulder, 2016). This will help a country in developing a clear-cut policy to promote entrepreneurship at the national level so that future generations of graduates can be encouraged and motivated to become entrepreneurs. Consequently, entrepreneurship development programs or initiatives have been growing steadily in both countries, and the government of the respective countries has been continuously promoting entrepreneurship and supporting and encouraging university graduates to set up their own businesses.

Theoretical Development

Among the intention models, the theory of planned behavior (TPB) (Ajzen, 1988, 1991) is one of the most extensively investigated models. The model focuses on three key attitudes or independent antecedents to predict intentions. These are attitudes toward behavior (the degree to which an individual holds an optimistic and undesirable subjective assessment about being a businessperson (Autio, Keeley, Klofsten, Parker, & Hay, 2001; Kolvereid, 1996); a subjective norm (observed social pressure from family, friends, or significant others) (Ajzen, 1991) to start a new venture or not ; and perceived behavioral control (easiness or difficulty of becoming an entrepreneur). This model has been applied by Fayolle, Gailly, and Lassas - Clerc (2006) for predicting a wide range of human behaviors, including entrepreneurial intentions.

The TPB exemplary model has been used by numerous investigators and academics as a structure to explore attitudes towards entrepreneurial intentions (Finisterra do Paço, Ferreira, Raposo, Rodrigues, & Dinis, 2011). Several studies have tried to describe the factors and variables that explain intentions. So far, very few empirical analyses have been conducted in Saudi Arabia and Malaysia with regards to innovation, risk taking, and perceived risk that influence students' behavior towards entrepreneurial intention. Furthermore, very limited research has been focused on these two respective countries in relation to student's entrepreneurship. In this paper, we integrated and extended the TPB model in order to examine the entrepreneurship intentions of Saudi Arabian and Malaysian students. We believe that this framework will help the entrepreneurship researchers in recognizing the

Figure 1. The Extended TPB Conceptual Framework Incorporating Three Other Cognitive Factors

critical factors (such as risk taking, innovation, and perceived risk) that determine entrepreneurial intentions amongst university students in the two countries as well as their interrelationships amongst the two groups of students.

This study investigated the cognitive factors (such as social norms, attitudes, and perceived behaviors) and other factors (such as risk taking, innovation, and perceived risk), which incorporate the influence of TPB that leads to entrepreneurial intention (EI), that is, having an intention to become an entrepreneur after graduation from college. It is a cross-cultural study that aims to examine the entrepreneurial intention among Saudi Arabian and Malaysian university students. Basically, the research determined whether students in these two countries had any intentions of starting their individual professional business upon graduation rather than seeking an employment. For students with such intentions, the research examined various influencing factors that lead them to their intentions. Thus, this paper attempts to fill in this gap by focusing on these factors at the university level. With new empirical evidence, our work could contribute to the existing literature on entrepreneurship by incorporating the above - mentioned factors. The Figure 1 shows our extended conceptual framework proposed for this research.

Literature Review

(1) Entrepreneurship Intention Among University Students : A number of past entrepreneurship researchers have empirically applied the TPB to measure students' intentions and have confirmed the theory's prediction regarding the impact of three associated factors (personal attitude, social norms, and perceived behavioral control) on their intentions to be entrepreneurs (Engle, Dimitriadi, Gavidia, Schlaegel, Delanoe, Alvarado, He, Buame, & Wolff, 2010 ; Kennedy, Drennan, Renfrow, & Watson, 2003). These studies supported Ajzen's (1991) assertion that all the three predictors that lead to entrepreneurial intention are very important. However, their relative value and magnitude of the effect is not the same in every situation and country. Thus, these findings led us to include the three of Ajzen's most important variables (personal attitude, social norms, and perceived behavioral control) when examining entrepreneurial intentions amongst Saudi Arabian and Malaysian students' entrepreneurism.

To maintain competencies in a rapidly changing technological environment, the current research is shifting its focus on potential entrepreneurs to address the emergent need for more entrepreneurs to dynamically involve in uplifting the economic development and assist in meeting market needs and demands. It has become very vital for us to comprehend the role of entrepreneurial competencies and their characteristics and to determine how they affect the entrepreneurial intentions of university students (Al Mamun, Nawi, Dewiendren, & Shamsudin, 2016). Entrepreneurial university students are crucial both as backups for current entrepreneurs and as catalysts for future employment, particularly for high-tech industries in developing countries such as Malaysia (Rasli, Khan, Malekifar, & Jabeen, 2013) and Saudi Arabia. Although numerous studies have shown that entrepreneurship education plays a crucial role in producing entrepreneurial individuals, studies examining how entrepreneurial intention leads to start up preparations amongst business students remain scarce (Mahajar, 2012).

According to Wang and Wong (2004), in Singapore, amongst the factors that represent major constraints to students, wanting to become entrepreneurs are inadequate business knowledge and inadequate understanding of the perceived risks of doing business. Generally, the important characteristics of an entrepreneur include innovation and creativity, understanding of the perceived risk, and willingness to take risks. These factors are not only used to evaluate the entrepreneurial behavior of a person, but they also are used to evaluate the entrepreneurial alignment of an association or a corporation (Hagen & Zucchella, 2011). Entrepreneurship refers to an individual's capability to turn ideas into action. It includes creativity, innovation, and risk taking, and also the ability to manage tasks and assignments in order to achieve his/her objectives. Today's small businesses,

predominantly new ventures, are very important for entrepreneurship, contributing not just to occupation, societal and governmental stability, but also to their country's innovative and competitive power (Thurik & Wennekers, 2004). A number of studies have tried to describe the factors and variables that explain intentions. So far, very few empirical analyses have been conducted in Saudi Arabia and Malaysia with regards to innovation, risk taking, and perceived risk that influence students' behavior towards entrepreneurial intention. Thus, this research study tries to fill in this gap by focusing on these factors amongst college students. With new empirical evidence, our work could contribute to the existing literature on entrepreneurship by incorporating these factors, which are of utmost importance to this research domain in the academic circle. Below, we discuss some of the constructs that have been found by researchers to influence entrepreneurial intentions or behaviors amongst people.

(2) Factors Influencing College Students Towards Entrepreneurial Intentions

(i) Personal Attitude (PA) : In terms of entrepreneurship, attitude refers to the individual characteristics that lead people to have a positive outlook towards entrepreneurship in general, and entrepreneurial intention in particular. Several studies have found that formal entrepreneurship education affects students' attitude, influences their future career direction, and has a significant impact on their entrepreneurial attitude over time (Dinis, Arminda, João, Mário, & Ricardo, 2013). According to Maes, Leroy, and Sels (2014), personal attitude and perceived behavior work indirectly with social norms in setting the person's intention to be involved in entrepreneurship. In the same vein, Kadir, Salim, and Kamarudin (2012) found that undergraduate students' attitudes had a positive impact on their intention to choose entrepreneurship as a career choice. In addition, a positive and encouraging attitude of the students may more likely strengthen an individual's intention to participate in entrepreneurship. A recent study found that university students who were exposed to entrepreneurship education developed a more positive attitude to pursuing entrepreneurial careers (Shamsudin, Al Mamun, Nawi, Nasir, & Zakaria, 2016). Attitude characterized the utmost effective forecaster of entrepreneurial intention, followed by subjective norms, and then perceived behavioral control (Yang, 2013).

(ii) Social Norms (SN) : Social norms or social variables are subjective norms. This measure relates to the perceived social pressure to execute or not to execute the entrepreneurial behavior. In particular, it refers to the insight that entrepreneurship - oriented people' would or would not support the choice to become a businessperson (Ajzen, 1991). Social norms play a significant role in guiding the intention and behavior of students to pursue higher education as well as to pursue more substantial entrepreneurial assignments (Iqbal, Melhem, & Kokash, 2012). Most of the people might be stimulated or discouraged to be involved in entrepreneurship by any of the social norm's measurements, such as the family well being, monotonous sorts of businesses, or a mere competition amongst prevailing and customary businesses. By incorporating certain cognitive factors in undergraduates' professional learning, it might direct the students to think differently and to try additionally artistic, inventive, and advanced business ideas. Muhammad (2012) proved the importance of subjective norms in students' choice of their career preference. Therefore, students were likely to be self-employed after graduation when their immediate contacts supported them to become entrepreneurs. The current study focuses on the positivity of SN towards entrepreneurship. SN is also found to mediate in the formation of a positive attitude and perceived behavioral control (Liñán & Chen, 2009).

(iii) Perceived Behavioral Control (PBC) : Perceived behavioral control is a tenet of a person's perceived personal ease or difficulty to perform entrepreneurial behavior (Maes et al., 2014). The study conducted by Kadir et al. (2012) found that behavioral control (creativity and risk taking) had a positive relationship with entrepreneurial intention. They also found that external control may be seen as situational characteristics that act as indicators for

students to react in a certain way, for example, having a perception of getting a financial support as an important requirement for setting up a business. The study done by Souitaris, Zerbinati, and Al-Laham (2007) regarding students' intention towards entrepreneurship showed that students in generally 'elite universities' were most likely to have high self-confidence, which could have a positive effect on their perceived behavioral control. For students who are majoring in business administration, they are certainly equipped to venture into business by the mere fact that they are more knowledgeable about business such as the importance of market orientation by focusing more on niche markets for their products or services (Subhash & Vijayakumar, 2011).

(iv) Innovation (I) : Innovation is concerned with the introduction of all kinds of changes pertaining to products, services, processes, financing, marketing, etc., in order for an organization to continue its existence, to grow, to be competitive, and to be adaptable to the ever-changing future (Zain, Kassim, & Kadasah, 2017). Entrepreneurs contribute to economic progress through their innovativeness, which involves the development of new processes, new products, new supply sources, innovative markets' exploitation techniques, and new ways to develop businesses (Santandreu - Mascarell, Garzón, & Knorr, 2013). Armstrong and Hird (2009) found that innovativeness has a strong impact on entrepreneurial intention and it adds to the fact that innovation and entrepreneurship represent important pillars of a country's growth and its ability to narrow the gap between entrepreneurs and others.

The term is also related to creativity since normally, one has to be creative in order to be able to come up with new products, new ideas, etc. As the global forces become increasingly inevitable, many business and professional specialists are foreseeing that workforce creativity and innovation will be the most important factors in establishing and maintaining their firm's competitive advantage. At a time when countries around the world are stressed because of economic and financial crises, it is all the more important for them to make themselves more attractive to potential investments from multinationals looking for countries that are innovation friendly (Einhorn, 2009).

Liñan (2007) highlighted the need for strengthening innovation and creativity in the educational system of a country because the improvement of this proficiency and competencies might be essential for it to recognize opportunities.

(v) Risk Taking (RT) : According to Kirzner (2009), entrepreneurship is all about opportunity and risk taking, which has created a vacuity of participation among people that are not too ready to take the risk. However, a study conducted by Othman and Ishak (2009) indicated that graduates' involvement in entrepreneurship was relatively very low in the sense that many preferred to be employed by organizations elsewhere rather than to become an entrepreneur. Risk-taking propensity could be conceived as a person's inclination to take risks in decision-making situations (Shamsudin et al., 2016) such as getting involved in entrepreneurship. This association replicates an affirmative influence of risk tolerance on entrepreneurial choice. Individuals with high risk tolerance will be more willing to accept a risky behavior, that is, they will consider alternatives whose eventual magnitudes could vary their frame of consequence outlooks. Meanwhile, individuals with low risk tolerance will incline to accept low-risk behavior and evade substitutes that may cause outcomes to stay away from their prospects. Some researchers found that students' aversion to risk is a barrier to entrepreneurship (Wang & Wong, 2004).

(vi) Perceived Risk (PR) : Sandhu, Sidique, and Riaz (2011) outlined the barriers of entrepreneurship to be an aversion to stress and hard work, fear of failure, aversion to risk, lack of resources, lack of social networking, and personal and demographic factors. Yurtkoru, Acar, and Teraman (2014) posited that being a risk lover has a positive and moderate effect on entrepreneurial intentions. Amongst the dimensions of willingness to take risk, risk-avoidance behavior was found to be less in university students, indicating that students are more risk takers. Aaijaz, Ibrahim, and Ahmad (2012) stated and revealed that 27.6% of the sample university students were ready to

bear great financial risks as entrepreneurs and about 68.8% of them were passionate about entrepreneurship and were willing to execute it.

More precisely, researchers have found that people start business endeavors because "they do not observe the risks involved, and not because they knowledgeably accept high levels of risks" (Simon, Houghton, & Aquino, 2000, p. 114). If people do not perceive risk applicably, they do not need to have a high-risk tendency or a great readiness to take risk knowingly. Therefore, risk perception seems to be a critical factor explaining an individual's decision to start a new venture. The dimension of risk perception seems to be well established and by applying it, one can find whether she/he perceives the risk involved in a decision making to be high, medium, or low. Furthermore, some research evidence indicates that students are more risk averse when they become adult entrepreneurs. Neergaard, Shaw, and Carter (2006) found gender-specific variances in risk aversion to be a significant reason for someone not to become self-employed (with only 46% of all men), but 56% of women considered fear of failure as the reason for them to avoid entrepreneurship.

(vii) Entrepreneurial Intention (EI) : From our review of the literature on entrepreneurial intention, we found that it is a rapidly progressing field of research with diverse major contributions (Engle et al., 2010; Fayolle & Liñán, 2014 ; Schlaegel & Koenig, 2014). Our understanding of entrepreneurial intentions has been directed by Ajzen's (1991) TPB, one of the most widely used theories in this domain which provides a valuable framework for understanding the complexities and complications of human social behavior (Ajzen, 1991; Kautonen, van Gelderen, & Tornokoski, 2013 ; Kautonen, van Gelderen, & Fink, 2015 ; Lortie & Castogiovanni, 2015). The more positive an individual's evaluations of engaging in entrepreneurial behaviour are, the more supportive of entrepreneurial behaviour the individual perceives their significant others to be ; and the more capable they feel of performing entrepreneurial activities, the stronger is their intention to engage in entrepreneurial behaviour (Kautonen, et al., 2013; Kautonen, Tornikoski, & Kibler, 2011). After all, venturing into a small business or entrepreneurship is also a way of poverty reduction in a society (Kumar & Jasheena, 2016).

Many researchers have explored various factors that measure their entrepreneurial intentions and have proposed many statistical models amongst which the TBP by Ajzen (1991) has acknowledged significant research sustenance from diverse frameworks. Wilbard (2009) argued that if we know those entrepreneurial intentions and their level of presence amongst individuals, we can forecast whether enterprising students exist in an academic population. The assumption is that those students with these entrepreneurial intentions will end up setting up their own business ventures.

Based on our review of the literature, several constructs or factors have been identified by researchers to influence entrepreneurial intentions of people. Thus, this study intends to examine whether some of these factors would play a role in influencing college undergraduates' intention to start their own professional or commercial business upon graduation from college instead of seeking employment in an organization.

Objectives of the Study

With this in mind, the objectives of this study are two fold:

(1) To identify the critical factors that determine entrepreneurial intentions amongst college students in Malaysia and Saudi Arabia ; and

(2) To test the differences in means between the two groups of students.

In particular, we intended to answer the following research questions :

(1) What are the relevant factors that have the most impact on entrepreneurial intention of college students in Malaysia and Saudi Arabia, and what are the interrelationships of these factors amongst these two groups of students?

(2) What is the impact of gender and culture on the factors that determine entrepreneurial intentions amongst the respondents? Does gender moderate the relationship between culture and personal attitude, perceived behavioral control, risk taking, perceived risk, innovation, and entrepreneurial intention ?

Methodology and Research Design

✤ **Participants, Measures, and Procedures :** This study was conducted during the spring and summer semesters (May to August) of the 2016 academic year. As a means of comparative study that examines the determinants of entrepreneurial intentions, we specifically distributed survey questionnaires to university and college students in Malaysia (MY) and Saudi Arabia (SA) who were born in the period of 1977 to 2000 (Generations X and Y). In Malaysia, the survey questionnaires were distributed online to students in several universities, while in Saudi Arabia, survey questionnaires were conveniently distributed to students of a public university in Jeddah. In the end, a total of 416 usable questionnaires (MY= 196, and SA= 220) were collected. The questionnaire consisted of eight sections, that is, personal attitude, subjective norms (single item), perceived behavioral control, risk taking, perceived risk, innovation, entrepreneur intention scales, and demographic information. All items in the survey questionnaire were adapted from previous studies (see Table 1). The items were measured using a 7 -point Likert scale (1 = *"Strongly disagree"*, 7 = *"Strongly agree"*). The questionnaire was translated from English into two languages, - Arabic and Malay (Bahasa Malaysia). To ensure that the two versions of the questionnaires had the same meaning in both languages, we used Brislin's (1986) back to back translation method. The data were analyzed using IBM SPSS and Amos (ver. 20) software.

Table 1. Sources of the Constructs

Construct	Source	No. of Items
Personal Attitude (PA)	Liñán and Chen (2009)	5
Perceived Behavioral Control (PBC)	Liñán and Chen (2009) ; Kolvereid (1996)	6
Risk Taking (RT)	Bolton and Lane (2012)	2
Innovation (I)	Bolton and Lane (2012)	3
Perceived Risk (PR)	Bolton and Lane (2012)	3
Entrepreneurial Intention (EI)	Liñán and Chen (2009)	4

Even though the survey questionnaire was designed around established and validated instrument from the previous studies (see Table 1), location and sampling variations across diverging contextual service settings require the instrument to be revalidated in order to obtain more accurate modeling in two different countries and cultures. Therefore, in this study, to test the dimensionality of the instrument, all the 24 items were analyzed using varimax rotation. The standard of significant factor loading was set to 0.55 to avoid the occurrence of any "cross-loadings" in multiple factors. The use of these criteria resulted in a seven-component solution explaining 62.6% (MY) of the variance amongst Malaysian respondents and six-component solution explaining 66.1% (SA) of the variance amongst Saudi Arabian respondents. The Kaiser Meyer-Olkin value was .87 (MY) and .90 (SA), correspondingly and Bartlett's test of sphericity reached statistical significance ($p < 0.00$), supporting the factorability of the correlation matrix.

Table 2. Assessment of Reliability, Convergent Validity, and Discriminant Validity [n = 403]

Constructs	Mean	SD	CR	AVE	1	2	3	4	5	6	7
MY [N = 196]											
1. Attractiveness[a]	5.14	.87	.74	.59	**.77**						
2. Motivation[a]	5.63	1.32	.75	.60	.31**	**.77**					
3. Readiness[b]	3.53	1.38	.67	.45	.24**	.06	**.67**				
4. Knowledge[b]	4.55	1.29	.61	.44	.05	.01	.19**	**.66**			
5. Risk[c,d,e]	4.20	1.40	.86	.76	-.23**	-.29**	-.29**	-.14	**.87**		
6. Innovation[d,e]	4.67	1.55	.62	.45	-.25**	-.27**	-.27**	.10	.47**	**.67**	
7. Intention[f]	4.22	1.34	.89	.81	-.06	-.20**	-.09	.24**	.42**	.44**	**.90**
SA [N = 220]											
1. Attractiveness[a]	5.70	1.11	.80	.66	**.81**						
2. Readiness[b]	4.64	1.09	.75	.51	.39**	**.71**					
3. Knowledge[b]	3.88	1.27	.76	.62	.24**	.54**	**.79**				
4. Risk[d]	5.73	1.02	.69	.53	.34**	.38**	.33**	**.73**			
5. Innovation[e]	5.61	1.08	.77	.63	.38**	.46**	.35**	.48**	**.79**		
6. Intention[f]	5.42	1.21	.94	.86	.67**	.57**	.42**	.34**	.43**	**.93**	

Significant at *p* <0.01 level (two-tailed); MY = Malaysia; SA = Saudi Arabia

Note. SD = Standard deviation; AVE = Average variance extracted; [a]Personal attitude; [b]Peceived behavioral control; [c] Risk taking; [d]Perceived risk; [e] Innovation; and [f] Entrepreneural intention.

Values below the diagonal are correlation estimates amongst the constructs, diagonal elements are square root of AVE, which are greater than inter-construct correlations.

The Table 2 shows the properties of the components of entrepreneurial measurements and provides evidence of reliability, convergent validity, and discriminant validity between the construct measures (Hair, Black, Babin, & Anderson, 2010).

Next, using IBM AMOS ver. 20 software, we performed confirmatory factor analysis (CFA) to test scale purification, validation (evidence of unidimensionality, reliability, convergent and discriminant validity), and cross-validation of the construct.

The Table 2 shows the convergent validity and reliability issues for the Malaysian and Saudi samples. From the confirmatory factor analysis, convergent validity could also be assessed by investigating the factor loadings and squared multiple regression correlations (R^2). Absolute values of 0.70 or more are suggested, but this standard may be readapted to lower or higher values. For example, minimum values of 0.30 to 0.50 have been suggested (Tabachnick & Fidell, 2001). Based on this standard, except for motivation for the Saudi respondents, not a single item is found to have low factor loadings. According to Nunnally and Bernstein (1994), the acceptable levels of reliability of instruments developed for research purposes can be as low as 0.60. The reliability values as shown in Table 2 are between the ranges of .61 to .89, and thus, they are acceptable for this study.

Analysis and Results

(1) Sample Profile : The profile of the respondents is shown in the Table 3. We used multiple regression analysis and general linear model to answer the research questions using the IBM SPSS and AMOS version 20 software.

Table 3. Sample Profile of the Students

Characteristics	Malaysia [MY]		Saudi Arabia [SA]	
	N	%	*N*	%
Female	102	52.0	142	64.5
Male	94	48.0	78	35.5
Total	196	100.0	220	100.0

(2) Multiple Regression Analysis : In order to answer the first research question, that is, what are the relevant factors that determine the entrepreneurial intentions of students in the two countries as well as their interrelationships amongst these two groups of respondents and to acquire a stronger representation of the perceptions of the respondents, it was vital to study the determining factors of entrepreneurial intentions of the dissimilar dimensions as specified by the students. Following Cohen, Cohen, West, and Aiken's (2003) recommendation, standardized path coefficient with absolute values of less than 0.10 may indicate "small" effects ; values of around 0.30 may indicate "medium" effects ; and values of 0.50 or more may indicate "large" effects. The results suggest that knowledge plays a very important role in determining entrepreneurial intention (Table 4) amongst the students of both countries.

By examining the results in detail, we could see some differences in the results between Saudi Arabian and Malaysian students. Amongst the Malaysian students, risk (risk taking and perceived risk) (β =.34) has a medium significant effect on intention, followed by innovation (β =.27) and knowledge (β =.25). All other remaining factors have non-significant *p* - values for them. For the Saudi Arabian students, attractiveness (β =.51) has a very strong significant effect on intention followed by readiness (β =.27) and knowledge (β =.13). Surprisingly, innovation is only important to Malaysian but not to Saudi Arabian students in recognizing their entrepreneurship opportunities.

Table 4. Regression Analysis Results

Variables			β	*T*	*p*
MY [*N* =196]					
Attractiveness[a]	→	Intention	.09	1.410	ns
Motivation[a]	→	Intention	-.06	-.983	ns
Readiness[b]	→	Intention	.02	.256	ns
Knowledge[b]	→	Intention	.25	4.065	.00
Risk[c,d,e]	→	Intention	.34	4.773	.00
Innovation[d,e]	→	Intention	.27	3.759	.00
SA [*N* = 220]					
Attractiveness[a]	→	Intention	.51	10.105	.00
Readiness[b]	→	Intention	.27	4.595	.00
Knowledge[b]	→	Intention	.13	2.344	.00
Risk[d]	→	Intention	-.01	-.197	ns
Innovation[e]	→	Intention	.07	1.256	ns

Significant level at *p* < 0.01**, MY = Malaysia ; SA = Saudi Arabia; [a] Personal attitude; [b] Peceived behavioural control; [c] Risk taking; [d] Perceived risk; [e] Innovation; and [f] Entrepreneural intention.

Table 5. General Linear Model Results

Independent Variable	Dependent Variable	F	p
Gender*Culture	Personal Attitude (PA)	.543	ns
Gender*Culture	Perceived Behavioral Control (PBC)	.075	ns
Gender*Culture	Risk Taking (RT)	.629	ns
Gender*Culture	Perceived Risk (PR)	.026	ns
Gender*Culture	Innovation (I)	4.130	.04
Gender*Culture	Intention (EI)	.333	ns

Note. Significant level at $p < 0.05$.

Table 6. Independent - Sample *t* - test

	Nationality	Mean	SD	t	p
Personal Attitude	MY	5.377	.933	3.785	0.000
	SA	5.738	1.007		
Perceived Behavioral Control	MY	3.941	.824	4.833	0.000
	SA	4.384	1.020		
Risk Taking	MY	4.212	1.823	6.595	0.000
	SA	5.184	1.140		
Perceived Risk	MY	4.697	1.524	8.382	0.000
	SA	5.742	.989		
Innovation	MY	4.005	1.357	13.404	0.000
	SA	5.594	1.055		
Entrepreneurial Intention	MY	4.180	1.257	10.354	0.000
	SA	5.449	1.240		

Note. Significance level : $p < 0.001$.

Note. MY = Malaysia; SA = Saudi Arabia

(3) General Linear Model : The next research question is: What is the impact of gender and culture on the factors that determine entrepreneurial intentions amongst the respondents and whether gender moderates the relationship between culture and personal attitude, perceived behavioral control, risk taking, perceived risk, innovation, and entrepreneurial intention? To answer these questions, we performed a two-way ANOVA using univariate general linear model.

The Table 5 shows that the interaction effect between gender and culture is only statistically significant on innovation, [F (*d.f.* = 3, 416) = 4.130, $p < 0.04$]. Furthermore, the impact of innovation is greater for both Saudi Arabian female (Mean : SA = 5.72 ; MY = 3.94) and male (Mean: SA = 5.36; MY = 4.01) students than for their Malaysian counterparts.

Next, we performed an independent - samples *t* - test to compare the mean scores between the Malaysian and Saudi Arabian students (see Table 6). From this table, we can see that there are significant differences in all the mean scores of the constructs between the two groups of respondents.

Discussion and Implications

Overall, the results clearly show significant difference between the two groups of respondents in all the

entrepreneurship intention variables examined in this study. Based on this result, Saudi Arabian students appear to have higher intentions towards entrepreneurship than Malaysian students. Of all the variables examined, only knowledge is found to be common to the two groups of respondents, indicating that both Saudi Arabian and Malaysian students agreed that to venture into their own business, they needed to have business knowledge. Other than knowledge, what causes the students to intend to be involved in entrepreneurship is also different between Saudi Arabian and Malaysian students. Saudi Arabian students found the idea of setting up their own business to be attractive, and they were ready to go into the profession once they had an opportunity to do that upon graduation. As for Malaysian students, they seemed to be more willing to take risks to venture into the unknown than the Saudi Arabian students and they were more interested in business ventures that are novel and innovative if they were to start their individual business after graduating from college or university. Thus, compared to the Saudi Arabian students, their Malaysian counterparts seem to be more adventurous with respect to their entrepreneurial intentions.

Based on the findings, a number of implications can be derived from this study, particularly for government institutions or authorities trying to promote entrepreneurial development amongst college graduates in their respective countries. Souitaris et al. (2007) found that entrepreneurship programs significantly raised students' goals in the direction of entrepreneurship by motivating them to select entrepreneurship as a career. First, they need to ensure that their students have the necessary knowledge about business. This is where the role of universities will come into play in the form of providing not only general knowledge in the functional areas of business, but also specific entrepreneurship courses. For students with business or related majors, this requirement is easily fulfilled since all colleges of business normally offer this knowledge or courses. For non-business college majors, this requirement can be fulfilled by offering elective business and entrepreneurship courses to them. In addition, colleges in the respective countries can also set up business development centres on campuses, where students can seek advice or take some entrepreneurship training programs offered by the centre. Having a business development centre not only benefits college students but also outsiders as well, since the centre can offer them courses or training programs on entrepreneurship. Mmadu and Egbule (2014) suggested that entrepreneurship educational programmes were positively related to students' entrepreneurial intention, which agrees with the view of Souitaris et al. (2007) that entrepreneurship programmes expressively upraise students' intentions toward entrepreneurship by stimulating them to decide on entrepreneurship as a career. This implies that students who have been exposed to entrepreneurial education programmes are more likely to become entrepreneurs.

Secondly, in Saudi Arabia, government institutions or authorities trying to promote entrepreneurial development amongst college graduates in the country need to create the right environment that motivates and encourages students to start their own business, not only by providing the right knowledge about businesses, but also by helping them to secure seed funds to start their business, either in the form of outright grants or business start-up loans. In Malaysia, in addition to providing the right atmosphere for business start-ups, the relevant institutions or authorities need to give students more independence in their attempt to come up with their own business since they are more willing to take risk and be more innovative in their ideas about business. The relevant institutions or authorities should educate their prospective college graduates about specific businesses, particularly in new fields, that are lacking in the country and which they are trying to promote amongst the graduates.

Limitations of the Study and Scope for Further Research

This study, just like in most studies, is not without any limitations. The main limitation of this study is that the data came only in a very limited number of colleges in both the countries. Future studies should gather data from a

wider spectrum of students in all study areas. To come up with a more significant conclusion, a longitudinal study should be conducted with larger samples from private and public universities in Asian countries. Also, a comparative study of private and public university students will enable us to examine the thoroughness of their entrepreneurial inclinations.

Finally, we would like to suggest some possible directions for future research. The replication of the study using different methodological aspects in other public and private universities of Asian countries will generate more generalized results. The theoretical model used in the study can be tested and replicated in other contexts and cultures. Future research should also examine the impact of other institutional factors, such as role of government, on entrepreneurial inclinations.

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Investigating Few Presumptions Regarding the Academic Performance of Students : A Study on MBA Scholars in Knowledge Park, Greater Noida

* Amitabh Mishra

Abstract

Since a long time, researchers have been exploring various dimensions of students' academic performance, including various factors influencing academic performance and the nature of relationship among them; methods of improvement; the impact of academic performance on the students' career, country, community, etc. The study in hand investigated the report cards of 1645 newly admitted MBA students (enrolled in 29 different institutions of Knowledge Park, Greater Noida, Uttar Pradesh) and tested the authenticity of few popular presumptions about the academic performances of students in Indian society. The research used a descriptive research design and a judgmental sampling technique. The data-sets were cross tabulated and analyzed using the tools of descriptive statistics. The hypotheses were tested using two tailed t - tests (i.e. paired - samples t - test and independent - samples t - test) for large samples. Finally, the research provided statistical evidence to accept or reject the validity of few popular presumptions about Indian students. The research disapproved a popular presumption that 'the students who perform well in internal examinations will also perform well in external examinations.' Further, the research provided a rationale to validate the presumption that 'the females are more studious and perform better than male students.' Further, the research also approved another presumption that 'the origin of the students' religion does not indicate or hint at their academic performance.'

Keywords: academic performance, gender, ethnicity, marks, AKTU, MBA, report cards

JEL Classification : I20, I23, M00, M10

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Education is the foundation of economic growth and social development. It is also a means to improve the well-being of individuals in a society. Higher education contributes to the development of human resources of a country in multiple ways. The reputation of the institution offering the higher education is often measured in terms of its alumni's contribution to the society and success in their careers.

Academic performance of students is fundamental for any educational institution. The measurement of academic performance involves studying a complex combination of forces (Duggal & Mehta, 2015 ; Phang, Johl, & Cooper, 2014) in the students' overall study environment. Around the world, the academic performance of the students is best judged by the marks (percentage or grades, i.e. GPA) they obtained in examinations (Guru - Gharana & Flanagan, 2012). The report cards of the students not only reflect their strong and weak subject areas, but also, if studied thoroughly and precisely, will indicate several hidden facts and trends.

Master of Business Administration (MBA) course is highly desirable among youngsters seeking their future in

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corporate jobs and entrepreneurship. It is generally agreed that the MBA course is an industry oriented course where the students learn the skills necessary to run various functions of the corporate world (Christensen, Nancy, & White, 2012). This fosters entrepreneurial ability and innovative instincts that determine the success and failure of enterprises (Chavadi & Sirothiya, 2018). On the other hand, many studies supported the finding that the MBA course and students' performance in it does not predict any managerial competency and skill (Bohra, 2013 ; Kass, Christian, & Bommer, 2012). Management education in India seems to be a victim of its own success. Deterioration in the quality of management graduates has resulted in lowering of the job profiles as well as the compensation packages (Bohra, 2013).

Dr. A.P.J. Abdul Kalam Technical University (AKTU) is Asia's largest affiliating university. It affiliates a total of 841 private educational institutions offering B.Tech., M.B.A., M.C.A., B.Arch., B.Pharma., B.H.M.C.T., and M.Tech. courses all over Uttar Pradesh (India). It also affiliates a total of 22 government aided/constituent/associated institutions (AKTU, 2016).

Literature Review

The socioeconomic development of the nation has a direct link to its students' academic performance (Duggal & Mehta, 2015). Some major factors affecting the academic performance of the students are : gender (Dayioglu & Turut-Asik, 2007; Ekpenyong, 2015; Hettler, 2015) ; ethnicity, that is, religion, race, language, nationality, etc. (Rienties et al., 2012 ; Steenkamp, Baard, & Frick, 2009) ; attendance (Broker, Milkman, & Raj, 2014 ; Rath & Kar, 2012) ; mode of education (Simmons, 2014 ; Trawick, Lile, & Howsen, 2010) ; family background and education of parents (Duggal & Mehta, 2015 ; Katsikas & Theodore, 2010) ; teachers' related issues (Naz, Bagram, & Khan, 2012), etc. The academic performance of students is also affected by the students' performance in previous courses (Christensen et al., 2012), performance in admission tests such as GMAT (Kass et al., 2012), personality type (Russo & Kaynama, 2012), and duration of the study (Katsikas & Theodore, 2010). The ultimate goal of an educator is to improve the students' learning, which is generally measured in terms of scores they earn in the course (Guru - Ghana & Flanagan, 2012). Globally, the performance of new students in the examinations (in terms of percentage/grades, pass rate, etc.) is a cause of concern (De Jager & Bitzer, 2013 ; Owusu-Acheaw, 2014; Phang et al., 2014). Often, recruiters consider management students' academic outcomes as an evidence of their seriousness for their careers. Research studies around the world exhibited conflicting results regarding the academic performance of the MBA students and development of employable skills, salary package, and career growth. Many scholars expressed that the students' GPA, that is, grades in examination and employability have no relationship with each other (Kass et al., 2012 ; Rubin & Dierdorff, 2011).

At the same time, research studies around the world also showed conflicting results regarding the influence of gender of the students on their performance in the examination (Fallan & Opstad, 2014). The research studies at college and university level conducted among management students found that gender had no predictive ability for the academic performance (Fallan & Opstad 2014 ; Guney, 2009 ; Rudranath 2013). Fogarty and Gouldwater (2010) interestingly held that, though the female students in the accounting subject exerted a greater effort than males, but they did not significantly outperform the male students. Rudranath (2013) investigated the achievement motivation and self concept of management scholars among the sample respondents (male and female students). The author investigated two variables to analyze how male and female students differed from each other in relation to their academic performance. The author observed that academic performance was the outcome of education and he found no significant difference in the academic performance of the male and female students of management.

In a study of Trondheim Business School (Norway), Fallan and Opstad (2014) illustrated that the gender of the management students did not have any significant effect on their performance in the management accounting

subject. They held that the male students performed slightly better than the female students, but the difference was not statistically significant. In a socioeconomic study of the Pittsburgh Metropolitan Statistical Area (MSA), Hettler (2015) found no statistically significant difference between the academic performance of male and female MBA students at the university level.

On the other hand, several studies on university level students found a significant relationship between gender of the student and academic performance (Rath & Kar, 2012 ; Russo & Kaynama, 2012). Such studies concluded that the students' academic performances vary with their gender and in many cases, the gender of the students can be used to guess their academic performances. Numerous research studies conducted on the students of various disciplines indicated that female students frequently performed better (in terms of marks/grades) than the male students (Dayioglu & Turut - Asik, 2007 ; Epstein, Clinton, Gabrovska, & Petrenko, 2013 ; Mirabela-Conostanta & Maria - Madela, 2011), and also put more time and effort into studies than their male counterparts (Fogarty & Gouldwater, 2010). Dayioglu and Turut - Asik (2007) found that in higher education, women often outperformed men in all departments of the university. Their study on a large university in Turkey attempted to find whether there were significant differences in the academic performances of male and female Turkish students. In a study on MBA students of Biju Patnaik University of Technology, Bhubaneswar, India, Rath and Kar (2012) found that the female management students scored significantly higher marks in examination and also attended significantly more number of classes as compared to the male students.

In a personality study, Russo and Kaynama (2012) examined the association between students' gender and their course grade. They found a significant relationship between gender of the student and course grade they achieved. Their study found that the female students performed better than their male counterparts, and students with 'feeling' personality type performed better than 'thinking' (T) personality type ; whereas, 'judging' (J) types performed better than 'perceiving' (P) types. The female students with 'feeling and judging' (FJ) types of personality appeared to perform better in the course than other combinations of gender and personality.

An ethnicity (or ethnic group) is a group of people who share a common language, ancestral, social, cultural, or national experiences (People & Bailey, 2010). Several factors determining ethnicity are : religion, race, language, customs, nationality, political identification, etc. However, bases determining the ethnicity vary hugely in societies and communities around the world (around the world, the race of a person is not determined by the color of skin; all the societies are not divided on the basis of the cast; etc.). The size of the ethnic group depends on the base of categorization and the number of members belonging to the category. Larger ethnic groups may be further subdivided into smaller ethnic sub-groups, which over a period of time may become distinct ethnic groups themselves.

Many social scientists studied the relationship between ethnicity and academic performance of students (Carnoy & Rothstein, 2013 ; Rienties et al., 2012), and in the majority of the studies, a persistent disparity in academic performance was found based on the ethnicity of the MBA students (De Jager & Bitzer, 2013 ; Hettler, 2015 ; Rienties et al., 2012). Rienties et al. (2012) identified four ethnic groups (Dutch, Western, Mixed-Western, Non-Western) while investigating 670 international and 288 domestic management students at five business schools in The Netherlands. They found that the academic performance (in terms of GPA/ECTS) of the Western students was superior than that of Mixed-Western, Non-Western, and Dutch students.

De Jager and Bitzer (2013) in their study at Stellenbosch University observed that the students' rate of success in examinations varied with their skin color and language. The success rate of the black students was found to be much higher than the success rate of the white students. At the same time, the success rate for students speaking Afrikaans language was found to be much higher than the success rate of students speaking English language. Carnoy and Rothstein (2013) mentioned that students from more-advantaged groups outperformed students from less-advantaged groups in the studies. Hettler (2015) examined the differences in performance on the basis of race (ethnicity), gender, socioeconomic status, etc. of the MBA and economics students at a mid-sized state university

located in the Pittsburgh Metropolitan Statistical Area (MSA). The author found no statistically significant difference in the academic performance (in terms of grades) of whites and African-American MBA students in the quantitative methods course. He further held that, in most of the cases, there was no statistically significant difference between the academic performance of male and female MBA students.

The Research Gap

There are plenty of studies related to academic performance of students and the factors affecting them at school, college, and university. However, the available academic literature still lacks in terms of empirical studies, specifically on MBA students' academic performance and the affecting factors. Most of the previous studies on MBA students have not directly addressed the issues such as ethnicity (in terms of religion), gender, internal and external marks, and their relationship with the academic performance of the students. The majority of the available studies have focused upon admission test scores (scores in GMAT, GRE, etc.) and academic performance (Kass et al., 2012) as well as mode of education (i.e. online vs. offline, regular vs. distance, etc.) and academic performance (Hettler, 2015 ; Simmons, 2014), etc. The present study investigates the authenticity of few popular presumptions regarding the academic performance of Indian students, which is an unexplored research area and requires due exploration.

Objectives, Research Questions, and Hypotheses

For a very long time, the Indian society has been carrying many presumptions about the academic performance of the students. The academic literature lacks in terms of sufficient investigations to find out evidences regarding the authenticity of such presumptions. The present study attempts to investigate whether few established presumptions about the students in India are true. For this study, I analyzed the report cards and investigated the academic performance of MBA Ist semester students enrolled in AKTU affiliated institutions.

✤ **Problem Statement :** "Undertaking a research study to test the authenticity of few established presumptions about the academic performance of Indian students pursuing the MBA course."

According to AKTU norms, the total marks (150 marks) in a particular subject is the sum of marks in external examination (100 marks based on a written test) and marks in the internal examination (50 marks based on the class tests, attendance, and teacher assessment). The internal marks in a subject depend on the written class tests (known as Pre-University Test or PUT), the attendance of the students, and the assessment of the subject teacher during the semester. It is generally assumed that the students who perform well (score good marks) in the internal examinations will also perform well in the external examinations. In other words, the students' performance does not change in two examinations (internal and external), and the performance (in terms of marks) in one examination can indicate the same students' performance in other examination.

Research Question 1 : Whether there is a change in student performance (in terms of marks) in two examinations (i.e. internal and external) in the MBA course?

✤ **H01:** There is no significant difference in the mean marks scored by the students in internal and external examinations.

The Indian society generally believes that the female students are more studious and more sincere than the male students on all the levels of academics. Board examination results (CBSE, ICSE, etc.) and merit list of various

competitive examinations (IIT JEE, CPMT, etc.) often confirm the superior performance of the female students at various levels. The present research attempts to find out whether the female MBA students showed superior performance (in terms of marks) than their male counterparts ?

Research Question 2: Do the female students perform better (in terms of marks) than male students in the MBA course ?

↳ **H02a:** There is no significant difference between the mean external marks scored by male and female MBA students.

↳ **H02b:** There is no significant difference between the mean internal marks scored by male and female MBA students.

↳ **H02c:** There is no significant difference between the mean total marks (external + internal) scored by male and female MBA students.

The Indian society is a multi-religion, multi-cast, and multi-lingual society. The Indian civilization is believed to be one of the oldest civilizations of the world, and the traces of it were found in the remains of urban communities of Harappa, Mohenjodaro, Mehargarh, and Lothal (Mishra & Ojha, 2017). It has been enriched by successive migrations from other religions and geographies of the world. Today's Indian society is mainly composed of six major religions namely, Hinduism, Buddhism, Jainism, Sikhism, Islam, and Christianity. Among these religions, Hinduism, Buddhism, Jainism, and Sikhism (also called as Indian religions) have emerged from the Indian subcontinent ; whereas, Islam and Christianity (also called foreign religions) originated outside the Indian subcontinent (Bandyopadhyay, Morais, & Chick, 2008) and were brought to India by roaming saints, invaders, and traders. Despite many differences, all the Indian religions share certain key similarities in concepts and rituals, such as the existence of body and self (i.e. *Atma*) and *Moksha* (liberation from the cycle of rebirth).

Religion is a strong ethnic base for studying the behavior of people. Various research studies at the international level claimed that the performance of the students is hugely influenced by their ethnicity and their societal background (Hettler, 2015 ; Rienties, Beausaert, Grohnert, Niemantsverdriet, & Kommers, 2012). In the Indian society, though it is generally observed that due to numerous socioeconomic reasons, members of few particular casts (irrespective of their religion & grouped in SC, ST, & OBC categories, that is, scheduled cast, schedule tribe and, other backward communities) underperform in studies and competitive examinations. And hence, Indian constitution protects their interests by giving them relaxation in qualifying marks and age, reservation in jobs, fee concessions, etc. However, the origin of the students' religion (Indian vs. Foreign) seems not to have any influence on their academic performance, and the students of both religious origins are presumed to be equally studious and performing.

Research Question 3: Do the students following the 'Indian religions' perform better (in terms of marks) than students following the 'foreign religions' in MBA course?

↳ **H03a :** There is no significant difference between the mean external marks scored by the MBA students following the Indian religions and MBA students following the foreign religions.

↳ **H03b :** There is no significant difference between the mean internal marks scored by the MBA students following the Indian religions and MBA students following the foreign religions.

✋ **H03c :** There is no significant difference between the mean total marks (external + internal) scored by the MBA students following the Indian religions and MBA students following the foreign religions.

Research Methodology

The aim of the research is to study the academic performance of the MBA Ist semester students of AKTU in the light of few established presumptions in India. The study uses a descriptive (cross-sectional) research design to achieve its aim. A judgmental sampling technique was used to draw samples. After a discussion with the knowledgeable people, all the AKTU affiliated management institutions of the Knowledge Park institutional area (situated in the National Capital Region of India) were chosen for the study. Knowledge Park is a premier centre of professional education in India, and it attracts students from all the geographies and demographics of the country. It is spread in approximately 1400 acres with more than 300 educational institutions offering a variety of technical and vocational courses. Presently, more than 2 lakh students from distinct areas of India and abroad are enrolled in various institutions of Knowledge Park. On the basis of the opinions of knowledgeable people, all the MBA Ist semester students studying in AKTU affiliated institutions (excluding MBA in Tourism and Hospitality course) of Knowledge Park, Gr. Noida (Uttar Pradesh) were included in the sample. The sample excluded institutions which are affiliated to AKTU but had zero enrollments during 2015-2017.

The entire process of the present research (from conceptualization to finalization) was done between January 2016 - January 2018. To avoid any response bias, the study used authentic data obtained from the website of the AKTU, and MBA Ist semester (session 2015-2017) report cards were downloaded from the AKTU's website between 16-05-2016 and 20-07-2016. Initially, the available report cards of all the 1654 MBA students (studying in 29 different institutions of Knowledge Park) were thoroughly observed. Further, it was decided to consider only those students who appeared in the examinations of all the eight theory subjects and whose results were completely declared (1301 MBA students) during the data collection period. Due to the non declaration of one/few subjects results or absenteeism in one/few theory subjects, a total of 353 students were excluded from the study sample (Table 1).

Table 1. Sample Profile

		Sample Size			
		Total		**Qualified***	
		No.	**%**	**No.**	**%**
Gender	Male	1221	73.8	951	73.1
	Female	424	25.6	350	26.9
	Total	1645	99.5	1301	100.0
	Missing	9	.5		
	Total	1654	100.0		
Ethnicity	Indian Origin	1444	87.3	1134	87.2
(in terms of origin of religion)	Foreign Origin	201	12.2	167	12.8
	Total	1645	99.5	1301	100.0
	Missing	9	.5		
	Total	1654	100.0		

Note. *Excluding students whose results were not declared in one or few subjects or/and who were absent in one or few theory subjects.

The report cards were downloaded using the roll number of the students admitted to the session 2015-17. All the students enrolled in AKTU got their 10 digit roll number according to a predefined and easy to anticipate mechanism. For example, the digits in the roll 1522570023 represent the students' year of admission (2015), college code (225), branch code (70), and students' serial number (023) according to the first alphabet of their names. The information available on AKTU's website was used to decide colleges located in Knowledge Park, Greater Noida ; number of MBA students in various colleges; etc.

Besides the marks of the MBA students, the research also required information regarding the gender and ethnicity (in terms of the origin of religion) of the students. The full name of an Indian is often a clear indicator of his/her gender and the religion he/she belongs to. Hence, the gender and ethnicity of the students were determined by observing the names of the students and that of their fathers in report cards.

Data obtained from report cards were entered in SPSS 20.0 (Statistical Package for Social Sciences 20.0) for further statistical analysis. The data were cross tabulated according to gender and ethnicity vs. performance (in terms of pass/fail and grades). The tools of descriptive statistics such as percentages, arithmetic mean, and standard deviations were used to uncover several hidden facts. The hypotheses were tested by applying two tailed t-tests (paired-samples t - test and independent-samples t - test) for large samples at the 95% level of confidence. A paired-samples t - test was applied to determine the significance of the difference in the student performance (in terms of mean marks) in the internal examination versus same student performance in external examination. An independent-samples t - test was applied to know the significance of difference between the performance (in terms of mean marks) of two large samples, that is, male vs. female and 'students following the Indian religions' vs. 'students following the foreign religions.'

Analysis and Results

The Table 2 presents the cross-tabulation of the students' gender and ethnicity (in terms of origin of their religion) with their performance (in terms of pass/fail). It was observed that in AKTU's MBA Ist semester examinations, a total of 54.3% students performed well and passed in all the subjects ; whereas, more than 55% students underperformed and failed in one or more subjects. Among underperformers, a total of 30.64% students severely underperformed and failed in three or more subjects (14% of total students).

The cross-tabulation of the students' gender with their performance (in terms of pass/fail) indicated a superior performance of female students over the male students. More than 70% female students performed well and passed in all the subjects against 48.3% male students. At the same time, more male students emerged as severe

Table 2. Cross Tabulation : Gender & Ethnicity vs. Performance (in Terms of Pass/Fail)

| | | Performance (in Terms of Pass/Fail) | | | | | | | | | |
| | | Pass | | Fail in 1 subject | | Fail in 2 subjects | | Fail in 3 or more subjects | | Total | |
		No.	%	No.	%	No.	%	No.	%	No.	%
Gender	Male	459	48.3	220	21.3	112	11.8	160	16.8	951	100
	Female	248	70.9	47	13.4	33	9.4	22	6.3	350	100
	Total	707	54.3	267	20.5	145	11.1	182	**14.0**	**1301**	**100**
Ethnicity (in terms of origin of religion)	Indian Religions	629	55.5	225	19.8	120	10.6	160	14.1	1134	100
	Foreign Religions	78	46.7	42	25.1	25	15.0	22	13.2	167	100
	Total	707	54.3	267	20.5	145	11.1	182	**14.0**	**1301**	**100**

Table 3. Cross Tabulation : Gender & Ethnicity vs. Performance (in Terms of Grades)

| | | Grades Assigned | | | | | | | | | | Total | |
| | | A$^+$ (Very Good) | | A (Good) | | B (Average) | | C (Poor) | | C$^-$ (Very Poor) | | | |
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Gender	Male	0	0	203	21.3	588	61.8	158	16.6	2	0.2	951	100
	Female	11	3.1	171	48.9	154	44	14	4	0	0	350	100
	Total	11	.8	374	28.7	742	57	172	13.2	2	.2	1301	100
Ethnicity (in	Indian Religions	10	.9	340	30	638	56.3	144	12.7	2	.2	1134	100
terms of origin	Foreign Religions	1	.6	34	20.4	104	62.3	28	16.8	0	0	167	100
of religion)	Total	11	.8	374	28.7	742	57	172	13.2	2	.2	1301	100

Note. Grading rule: A$^+$ Very Good = 75% - 100% total marks, A Good = 60% - 75% total marks, B Fair/Average = 45% - 60% total marks, C Poor= 30% - 45% total marks, C$^-$ Very Poor = 0% - 30% total marks.

underperformers than the female students. A total of 16.8% male students severely underperformed and failed in three or more subjects against 6.3% female students (Table 2).

The cross-tabulation of ethnicity (in terms of the origin of religion) with the performance (in terms of pass/fail) indicates a better performance of students following the Indian religions over the students following the foreign religions. On one hand, a total of 55.5% students following the 'Indian religions' performed well and passed all the subjects against 46.7% students following the 'foreign religions.' On the other hand, students following the 'Indian religions' (14.1%) also emerged as severe underperformers and failed in three or more subjects than their foreign counterparts (13.2%) (Table 2).

The Table 3 presents the cross-tabulation of gender and ethnicity with the performance (in terms of grades assigned) of MBA Ist semester students. The students were assigned a grade from A$^+$ (very good) to C$^-$ (very poor) on the basis of percentage total marks (internal + external) obtained in the examinations.

Besides achieving the superior pass percentage in the AKTU's MBA Ist semester examination (Table 2), the female students achieved higher total marks (hence, superior grades) than male students (Table 3). A total of 3.1% female students scored more than 75% total marks (Grade A$^+$) against 0% male students ; whereas, a of total 48.9% female students scored total marks between 60% -75% (Grade A) against total 21.3% male students.

The cross-tabulation of ethnicity with the performance (in terms of grades assigned) indicated a better performance of students following the Indian religions over the students following the foreign religions. A total of 0.9% students following the 'Indian religions' scored more than 75% total marks (Grade A$^+$) against 0.6% students following 'foreign religions' ; whereas, a total of 30% students following the 'Indian religions' scored total marks between 60 % -75% (Grade A) against a total of 20.4% students following 'foreign religions' (Table 3).

The Table 4 presents the mean marks scored by the students in the external and internal examinations. In MBA Ist semester examinations, the students' best performance appeared in (scored maximum total mean marks) Communication for Management (58.44%) followed by the subjects : Business Environment (57.67%), Marketing Management (57.09), and Fundamentals of Computer & Information System (56.10%). At the same time, the students' performance was poor (scored minimum total mean marks) in the subjects : Business Accounting (49.46%) followed by Business Statistics (52.12%), Managerial Economics (53.77%), and Managing Organization (54.32%). The maximum variation in students' performance, that is, consistency in performance is found in Business Statistics (*S.D* = 23.94) ; whereas, minimum variation is found in Communication for Management (*S.D* =12.92).

The Table 4 reveals a huge difference between the students' performance in the external and internal examinations. Irrespective of the subjects, the students scored much higher marks in the internal examinations

Table 4. Mean Marks in External and Internal Examinations

S.N.	Name of Subject & Code	External Examination (100 marks)			Internal Examination (50 marks)			Total (150 marks)		
		Mean		*S.D*	Mean		*S.D*	Mean		*S.D*
		No.	%		No.	%		No.	%	
1	Managing Organization (NMBA011)	40.29	40.29	16.37	41.19	82.38	4.799	81.48	54.32	18.16
2	Managerial Economics (NMBA011)	39.64	39.64	12.55	41.00	82	5.112	80.65	53.77	15.21
3	Business Accounting (NMBA011)	32.93	32.93	14.19	41.27	82.54	5.162	74.19	49.46	17.06
4	Business Environment (NMBA011)	45.30	45.30	13.99	41.21	82.42	4.828	86.51	57.67	15.72
5	Business Statistics (NMBA011)	37.80	37.80	21.22	40.38	80.76	5.545	78.18	52.12	23.94
6	Marketing Management (NMBA011)	44.40	44.40	15.84	41.23	82.46	4.877	85.64	57.09	17.80
7	Communication for Management (NMBA011)	45.99	45.99	10.66	41.67	83.34	4.837	87.66	58.44	12.92
8	Fundamentals of Computer & Information System (NMBA011)	42.64	42.64	13.35	41.50	83	4.966	84.15	56.10	15.46

Note. *S.D* = Standard Deviation

than external examinations. The mean marks obtained by the students in the external examination lies between 32.93% and 45.99% ; whereas, mean marks obtained by the students in the internal examination lies between 80.76% and 83.34%. At the same time, it is also observed that the students' performance in internal examination is more consistent (*S.D* between 4.799 & 5.545) than their performance in external examination (*S.D* between 10.66 & 21.11).

(1) Paired Samples *t* - test

Research Question 1 : Whether there is a change in student performance (in terms of marks) in two examinations (i.e. internal and external) in MBA course?

The paired-samples *t* - test rejects the null hypothesis H01 (Table 5). Hence, it is reasonable to believe that for 1301 students, the mean marks in the internal examination (82.36% marks) are significantly greater than the mean marks in the external examination (41.13%) at the 95% level of significance. In other words, the students' performance changes greatly in two examinations, and hence, the performance in one examination (internal or external) cannot indicate the same students' performance in the other examination. This finding disapproves the presumption that 'the students who perform well in internal examinations will also perform well in external examinations.'

Table 5. Paired Samples *t* - test : External Marks vs. Internal Marks

Paired Samples Statistics	Mean	S.D[1]	M. D.[2]	S. E.[3]	*p*-value	H01 is[4]
External Marks						
(% of external marks obtained in total external marks i.e. 100*total external obtained/800)	41.13	10.62	-41.24	0.28	.000	Rejected
Internal Marks						
(% of internal marks obtained in total internal marks i.e.100*total internal obtained/400)	82.36	8.90				

Note. 1: Standard Deviation, 2: Mean Difference, 3: Standard Error, 4: At 5% Level of Significance (2 tailed).

Table 6. Independent Samples *t* - test : Gender vs. Performance

	Gender	Mean	S.D[1]	M. D.[2]	S. E Diff.[3]	*p*-value	H0 is[4]
Marks in external examination (Out of 800)	Male (951)	313.56	80.10	-57.40	5.07	.000	H02a is
	Female (350)	370.96	83.84				Rejected
Marks in internal examination	Male (951)	323.54	35.20	-21.97	2.14	.000	H02b is
(Out of 400)	Female (350)	345.51	31.58				Rejected
Total marks obtained	Male (951)	637.10	100.22	-79.37	6.31	.000	H02c is
(Out of 1200)	Female (350)	716.47	102.88				Rejected

Note. 1: Standard Deviation, 2: Mean Difference, 3: Standard Error of the difference, 4: At 5% level of significance.

(2) Independent Samples *t* - test

Research Question 2 : Do the female students perform better (in terms of marks) than male students in the MBA course ?

The independent - samples *t* - test rejects all the three null hypotheses (H02a, H02b, and H02c). In the external examination, female students scored higher mean marks (370.96 marks) than male students (313.56 marks), and the mean difference is found to be significant (Table 6). Hence, it can be concluded that 'the female students perform better than male students in the external examinations.' In internal examinations, female students again scored higher mean marks (345.51 marks) than male students (323.54 marks). Further, the rejection of the null hypothesis leads us to conclude that 'the female students perform better than their male counterparts in the internal examinations' also (Table 6).

In case of total marks (external + internal), the female students once again scored higher mean marks (716.47 marks) than the male students (637.10 marks), and the mean difference is found to be significant (Table 6). Hence, it is reasonable to believe that 'the overall performance (external + internal) of female students is better than that of the male students.'

The rejection of the hypotheses provides sufficient evidence to believe that the performance of female students was significantly different from the male students in terms of external, internal, and total marks obtained in the MBA Ist semester examination. This finding approves and validates the presumption that the 'female students are more studious and performed better than the male students.'

Research Question 3 : Do the students following the 'Indian religions' perform better (in terms of marks) than students following the 'foreign religions' in MBA course?

Table 7. Independent Samples *t* - test: Ethnicity vs. Performance

	Ethnicity (in Terms of Origin of Religion)	Mean	S.D[1]	M. D.[2]	S. E Diff.[3]	*p*-value	H0 is[4]
Marks in external	Indian religions (1134)	330.74	85.41	13.58	7.04	.054	H03a is
examination (out of 800)	Foreign religions (167)	317.17	81.36				Accepted
Marks in internal	Indian religions (1134)	330.52	35.60	8.34	2.94	.005	H03b is
examination (out of 400)	Foreign religions (167)	322.18	34.93				Rejected
Total marks	Indian religions (1134)	661.27	107.52	21.92	8.84	.013	H03c is
obtained (Out of 1200)	Foreign religions (167)	639.35	100.56				Rejected

Note. 1: Standard Deviation, 2: Mean Difference, 3: Standard Error of the Difference, 4 : At 5% level of significance (2 tailed).

The independent-samples t - test accepts the null hypothesis H03a (i.e. for marks in external examination vs. ethnicity). Further, the test rejects the null hypotheses H03b (i.e. for the marks in internal examination vs. ethnicity) and H03c (i.e. for the total marks obtained vs. ethnicity) (Table 7).

Though, in the external examination, the students following 'Indian religions' scored higher marks (330.74 marks) than the students following the 'foreign religions' (317.17 marks). However, the mean difference is found to be insignificant (i.e. H03a is accepted). Hence, it is reasonable to say that the performance of students following Indian religions are similar to their non-Indian counterparts in the external examination (Table 7).

In internal examinations, the students following the 'Indian religions' scored superior marks (330.52 marks) as compared to the students following 'foreign religions' (322.12 marks) and the mean difference is found to be significant (Table 7). Hence, it is reasonable to conclude that 'the students following Indian religions performed better than their foreign counterparts in the internal examinations.' Finally, in case of total marks (external + internal), the students following the 'Indian religions' scored higher (661.27 total marks) than the students following the 'foreign religions' (639.35 marks), and the mean difference is found to be significant (Table 7). Hence, it is reasonable to believe that 'the overall performance (in terms of total marks) of students following the Indian religions is better than the students following foreign religions.'

In terms of their performance in the external examination, the students of both the religious origins are found similar and not significantly different. However, in terms of the overall performance (internal + external) and performance in internal examinations, the students following the 'Indian religions' are found to be significantly better than the students following 'foreign religions' (Table 7). Further, the present study already disapproves the presumption that 'the students who perform well (score good marks) in the internal examinations will also perform well in the external examinations' (H01) and the students' performance in the internal examinations cannot indicate their performance in external examinations. Hence, in this context, the superior performance in the internal examinations (a sum of marks for class tests, attendance, and teacher assessment) and superior overall performance (internal + external) by the students following 'Indian religions' over students following 'foreign religions' does not lead to any concrete conclusion.

In the light of the above revelations, the research finds insufficient rationale to accept that the students following the 'Indian religions' performed better than the students following the 'foreign religions'. And hence, the present study provides statistical evidence to approve the presumption that 'the origin of students' religion does not indicate or hint their academic performance.'

Discussion and Conclusion

Students are the future of a country. A nation's present academic environment and its contribution in nurturing a culture of inquisitiveness as well as research may decide its future achievements and prosperity. The ultimate goal of an educator is to improve the learning of its students, which is generally measured in terms of scores earned in examinations (Guru - Gharana & Flanagan, 2012). The academic performance of students has been a topic of research in the recent past (Duggal & Mehta, 2015). It is not only an indicator of a university's quality of education, but also an indicator of the nation's human resource capital.

The aim of the research was to test the authenticity of few popular presumptions about the academic performance of students in Indian society. The research investigated the report cards of newly admitted MBA students and concluded that the performance of students in the internal examinations cannot indicate or hint at their performance in external examinations. This finding disapproves the presumption that 'the students who perform well in internal examinations will also perform well in external examinations.' Further, the study provides sufficient evidence to believe that the 'female MBA students were more studious and performed academically better than the male MBA students' during their Ist semester examinations. And finally, the study approves the

presumption that 'the origin of the students' religion does not indicate or hint at their academic performance.' In other words, we can conclude that the students of both the religious origins were similarly studious and talented.

Managerial Implications

There are many implications of the study's findings. The higher rate of underperformers/ severe underperformers creates a need to re-look at the university's academic policy and its execution. The study also indicates an urgent need to review the process and the relevance of the university's internal examinations. Very high internal marks and its huge difference with external marks may lead to believe that institutes and teachers are simply gifting internal marks to their students. Superior academic performance of female students over male students supports the Government of India's initiative, *'Beti Bachaoo, Beti Padhaoo'* (save the girl child, educate the girl child). This may also help in reducing the gender disparity among the society and the workplace. Similar academic performance of students of both the 'religious origins' not only develops a sense of harmony, but also denies the demand of reservation on religious grounds.

Limitations of the Study and Scope for Future Research

The findings of the research cannot be generalized in the global context due to the unique characteristics of each country and society. The present study was restricted to MBA Ist semester students enrolled in AKTU affiliated private institutions situated at Knowledge Park, Greater Noida, Uttar Pradesh, India. The study was purely based on the report cards (downloaded from the AKTU's website) of the students, which provided an access to only few pertinent data. Future researchers can expand the study to government institutions, institutes located in other geographies, and affiliated to other universities. At the same time, the data on the report cards can also be supplemented with personal interviews of the scholars. Few more presumptions can be considered for statistical validation as well as some other dimensions of students' academic performance can be explored (for example, early/late marriages and academic performance ; coaching/tuition and academic performance ; hours of study and academic performance, etc.).

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Quality of Work Life of Women Employees in Private Sector Organizations in Ernakulam District of Kerala

* Cecily Shibi Netto

Abstract

Private sector organizations provide huge employment opportunities to women, and women make remarkable contributions to various organizations in the private sectors of the economy. This study analyzed the quality of work life of women employees in private sector organizations on the basis of their demographic factors, and 96 women employees working in various private sector organizations located in Ernakulam district of Kerala were purposively selected in a descriptive cross-sectional survey. Harvard Professor Richard E. Walton's eight-dimension scale was utilized to measure the quality of work life perception among women employees. Non-parametric tests such as Mann - Whitney *U* test, Kruskal - Wallis *H* test, and Pearsons's correlation were used as the major data analysis tools in the present study. It was observed that a significant difference existed between marital status of the respondents for work and total life space; educational qualification for social relevance of work life; organization type for adequate and fair compensation, constitutionalism, and social relevance of work life; work experience for social integration in the work organization; and monthly income for adequate and fair compensation, opportunities to use and develop human capacities, opportunity for continued growth and security, and social relevance of work life. It was also revealed that there was a significant positive relationship between the overall quality of work life and the majority of each dimensions of QWL.

Keywords: women employees, private sector organizations, quality of work life, demographic factors, QWL

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Quality of work life (QWL) is defined as those significant personal needs perceived by the employees, which they try to accomplish by working in an organization. Its conceptual foundations were laid by the behavioural scientists, through an eminent work on personality and organization, which was backed by Argyris (1957). The socio-technical systems theory, introduced by the Tavistock Institute of Human Relations during 1960s in London, is considered as an important quality of work life (QWL) construct. Advancing one's job opportunities within the organization has been recognized as one of the significant QWL criteria. The 'Quality of work life' concept has become an area of concern for the recent organizations as among the factors of production, human resource is identified to be the most important one by which other factors exist and get utilized. It was the behavioural scientists who paved the way for providing due consideration for the feelings and emotions of the human resources instead of treating them merely as machines from the old way. It was identified that a good QWL of human resources brings extensive benefits to the organization (Ghosh, 2002). The terms - quality of work life, humanization of work, industrial democracy, and participative work are used interchangeably for the similar concept. The core of these concepts is linked to the development of human resources and is about the importance of treating people as human beings and emphasizing on their participation and development in decisions relating

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to work (Pareek & Rao, 1981). Quality of work life has obtained sociological relevance and has became a significant topic which covers largely the well-being and welfare of the people, their standard of living, their living conditions, and lifestyle (Mathur, 1989). According to Sirgy, Efraty, Siegel, and Lee (2001), employees perceive quality when basic expectations about their employment and workplace are adequately met. Employees recognize that they have a high QWL when there is an apparent existence of openness and trust between workers and management and when the workers are fearless of being misguided in job performance (Yeo & Li, 2011). Quality of work life is mainly related to productivity. Better working conditions lead to improved employee performance, which in turn leads to increasing the profits of the organization. Providing structural and individual support to employees helps them to balance both work and family life, which will, in turn, profit both of them (Aggarwal, 2010).

Sirgy et al. (2001) described the QWL satisfaction of the people in the workplace in seven major needs, which were grouped as needs with respect to health and safety ; economic and family ; social, esteem, actualization, knowledge, and aesthetic factors. Health and safety needs refer to security from poor health and hazard in the workplace and outside, and improvement of good health. Economic and family needs refer to factors with respect to compensation, job security, and family needs. Social needs mean social relations in the workplace and during off work leisure time. Esteem needs refer to appreciation and recognition within and outside the organization. Actualization needs relate to identifying one's perspective within the workplace as an employee. Knowledge needs mean learning to develop work and professional skills. And finally, aesthetic needs relate to creativity in the organization, and at the private life and general aesthetics. Lee, Singhapakdi, and Sirgy (2007) grouped these need dimensions under two main heads as lower order needs and higher order needs, in which lower-order needs refer to the health and safety needs and economic and family needs ; whereas, higher-order needs consist of social, self-esteem, self-actualization, knowledge, and aesthetic needs. Efraty and Sirgy (1990) pointed out that the employees bring their group of needs to the organization and are expected to enjoy high or low quality of work life to the degree that their needs are satisfied through their participation in the organization. Higher the satisfaction of the needs of the employees at the workplace, higher will be the QWL. Richard Walton introduced the QWL process with the help of eight broad criteria that cover all the factors of the work-related dimensions of the employees (Bhattacharyya, 2006).

QWL of women employees in private sector organizations is a topic of concern because of some of the inherent negative job features of private employment compared to public sector employment. The major problems of private employment are job insecurity, low pay, lack of advancement opportunities, and work-life balance issues as long as women are concerned, besides interpersonal conflicts with managers and co-workers, role conflict, etc. Female employees also experience higher level of family - work conflict (Kala, Jan, Subramani, & Banureka, 2017). Thus, the present study aims to assess the QWL of women employees working in private sector organizations on the basis of their demographic factors. In the previous QWL studies, demographic features of the respondents played a significant position. Bolhari, Rezaeean, Bolhari, and Bairamzadeh (2011) measured the QWL of IT staffs and investigated its relationship with their demographic factors. A significant relationship was observed between QWL and demographic factors of the staff such as age, work experience, and income as per the study. Swapna and Gomathi (2013) elicited QWL constructs among IT employees in Bangalore. It was observed that there was a significant correlation between age and work life balance ; a marginal relationship was observed between gender and working conditions, general well-being and career prospects : work - life balance, pay, training, and development ; and a marginal level of significance was found between work experience and working conditions as per the study.

Gupta and Hyde (2013) studied the QWL of nationalized bank employees of Indore district. It was observed that a significant difference existed among employees regarding age, experience, and income for QWL and no significant difference existed among gender of the employees for perception towards QWL. Moradi,

Maghaminejad, and Azizi - Fini (2014) investigated the QWL of nurses in educational hospitals. As per the study, a moderate quality of work life was observed among the respondents and a significant correlation was found between educational level, work experience, and type of hospital for QWL.

Toppo and Yadav (2015) compared the QWL perception on the basis of grades of employees of Bokaro Steel Plant, Maharashtra. Grade demographic was observed to have great effect on QWL among non-executives and it was inferred from the study that the level of satisfaction of the employees increased as the designation increased with respect to financial and welfare factors, job and involvement in management factors, etc. Nayak, Sahoo, and Mohanty (2015) identified the organizational factors that predicted the QWL of private and corporate healthcare organization employees in Odisha. From the study, a significant positive correlation was found among gender, age, marital status, designation, and work experience of the respondents for QWL except stress level. Stress level, role of supervisor, career prospects, work environment, and challenging job were observed to be significant in explaining the QWL as per the study. Role of supervisor was found to be the most significant contributor of QWL and challenging job was observed to be the least contributor as per the study.

Gupta (2015) studied the quality of work life on the basis of demographics among insurance sector employees of Indore city. The results revealed that there was a significant difference between work experience, age, and income for perception towards quality of work life among the insurance sector employees ; however, no significant difference was found between gender and QWL. It was observed that older people perceived higher quality of work life than younger people. It was also observed that employees who were availing higher salaries, and those who had higher work experience were more satisfied with their jobs and perceived high level of QWL. Maghaminejad and Adib - Hajbaghery (2016) investigated the QWL of faculty members. The study reported that the overall QWL was observed to be average and no significant differences were found between the QWL and place of work, living location, and scientific ranking of faculty members.

From the review of the literature, it is inferred that there is a research gap to be studied about the quality of work life of women employees in private sector organizations in Ernakulam district of Kerala. Based upon the theoretical arguments and empirical evidence, the following research hypotheses are framed :

✧ **H1 :** There is a significant difference between demographic factors and QWL dimensions among women employees in private sector organizations.

✧ **H2 :** There is a significant relationship between overall QWL and each dimension of QWL among women employees in private sector organizations.

Objectives of the Study

(1) To assess the quality of work life perception of women employees in private sector organizations on the basis of their demographic factors.

(2) To examine the relationship between overall QWL and each dimension of QWL among women employees in private sector organizations.

Methodology

(1) Research Design : I adopted cross-sectional descriptive survey design. A sample of 96 working women was purposively drawn from various private sector organizations located in Ernakulam district, Kerala, which is considered as one of the major districts to which local women from other districts migrate for employment. The

participants included both married and unmarried women employees belonging to different age groups. The primary data collection was carried out during the period between December 2017 to February 2018.

(2) Survey Instruments : Primary data were collected using a structured questionnaire, in which the first part consisted of demographic factors of the respondents which included : age, marital status, number of children, educational qualification, organization type, designation, work experience, and monthly income. The second part consisted of quality of work life measurement, which was based on the QWL dimensions of Walton (1973). This scale measures adequate and fair compensation, safe and healthy working conditions, immediate opportunity to use and develop human capacities, future opportunity for continued growth and security, social integration in the work organization, constitutionalism, work and total life space, and the social relevance of work life. This scale consists of 43 items tested on a 5-point Likert scale ranging from 1 for *level of disagreement* to 5 for *level of agreement*, respectively. The scoring was such that a low score indicates *non-agreement* of the item, while a higher score indicates *agreement*.

(3) Data Analysis Tools : The statistical analysis was done in two stages. In the first stage, descriptive statistics of the measurement items and the reliability of the QWL measure applied in this study was examined. The second stage consisted of testing the hypotheses. The data were analyzed using SPSS 20.0 for Windows. Non-parametric tests like Mann - Whitney *U* test and Kruskal - Wallis *H* test were used for comparison of the factors considered between different levels of the demographic variables. A level of 0.05 was used as *a priori* for deciding statistical significance, and finally, Pearson's correlation coefficient was used to examine the relationship between overall QWL and each dimension of QWL.

Data Analysis and Interpretation

(1) Demographic Profile of the Respondents : The respondents included married and unmarried women across different age groups. A total of 96 women employees whose age ranged from 20-52 years with mean ± *SD* of 31.02 ± 8.499 years, in which majority belonged to the age group below 25 years (28 respondents; 29.2%) followed by those belonging to the 25 - 30 years and 30 - 35 years in equal proportion (20 respondents ; 20.8%) followed by those belonging to 35 - 40 years (8 respondents ; 8.3%), 40 - 45 years, and above 45 years in equal proportion (10 respondents ; 10.4%).

The majority of the respondents were married (62 respondents ; 64.6%) and had one child and two children in equal proportion (25 respondents ; 26%). The majority of them were graduates (46 respondents ; 47.9%) followed by post graduates (27 respondents ; 28.1%) and those with a higher secondary education (12 respondents ; 12.5%). Most of the respondents were employed in service organizations (63 respondents ; 65.6%) followed by trading (20 respondents ; 20.8%) and manufacturing type of organizations (13 respondents ; 13.5%).

When taking into consideration the designation of the women employees, it seems that the majority were working as front office assistants (45 respondents ; 46.9%), followed by office assistants (22 respondents ; 22.9%), accountants (16 respondents ; 16.7%), and accounts assistants (13 respondents ; 13.5%).

When taking into consideration the work experience of the women employees in the present organization, their work experience ranged from less than one year to 18 years in which majority of them had work experience ranging from 1 to 5 years (47 respondents ; 49%) and a minority of them had work experience of 15 years and above (4 respondents ; 4.2%). The majority of them were earning a monthly income ranging from ₹ 10,000 - ₹ 20,000 (50 respondents ; 52.1%) followed by those availing salaries below ₹ 20,000 (29 respondents ; 30.2%), ₹ 20,000 - ₹ 30,000 (14 respondents ; 14.6%), and only a limited percentage of them were earning salaries above ₹ 30,000 (3 respondents ; 3.1%).

Table 1. Reliability of Measures

QWL Dimensions	Cronbach's Alpha
Adequate and fair compensation.	0.863
Safe and healthy working conditions.	0.854
Opportunity to use and develop human capacities.	0.760
Opportunity for continued growth and security.	0.741
Social integration in work organization.	0.871
Constitutionalism in the work organization.	0.904
Work and total life space.	0.910
Social relevance of work life.	0.815
Overall quality of work life.	0.863

Table 2. Tests of Normality

QWL Dimensions	Kolmogorov - Smirnov[a]			Shapiro - Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Adequate and fair compensation.	0.085	96	0.087	0.965	96	0.012
Safe and healthy working conditions.	0.105	96	0.011	0.959	96	0.004
Opportunity to use and develop human capacities.	0.106	96	0.010	0.965	96	0.011
Opportunity for continued growth and security.	0.144	96	0.000	0.932	96	0.000
Social integration in work organization.	0.158	96	0.000	0.87	96	0.000
Constitutionalism in the work organization.	0.201	96	0.000	0.902	96	0.000
Work and total life space.	0.127	96	0.001	0.92	96	0.000
Social relevance of work life.	0.117	96	0.003	0.942	96	0.000

(2) Reliability Analysis : The reliability of the questionnaire was evaluated by using Cronbach's alpha and is presented in the Table 1. The results show that all the QWL constructs have reliability higher than 0.7, so further analysis is done. For analyzing the normality of the data, Kolmogorov - Smirnov test was applied (see Table 2). As the calculated values of all the dimensions of QWL except adequate and fair compensation is less than 0.05, statistical society normality is rejected. Therefore, non-parametric tests were used for analyzing the data in the present study.

(i) Testing the Difference in QWL Perception on the Basis of Marital Status : The influence of demographic control variables, that is, age, marital status, number of children, educational qualifications, type of organization, designation, work experience in the present organization, and income levels on the quality of work life perception of women employees was analyzed. The analysis were conducted by using Mann-Whitney U test and Kruskal-Wallis H test. The results which are significant in which the hypothesis H1 is accepted are presented below.

Firstly, marital status of the respondents was considered. Mann-Whitney U test was used to compare the mean

Table 3. QWL and Marital Status

QWL Dimensions	Marital Status	Mean Rank	Mann - Whitney U Test Statistics (p - value)
Work and Total Life Space	Married	44.13	783 (0.036*)
	Unmarried	56.47	

Note. *Significant at the 5% level.

scores of variables for two different groups of participants, that is, married and unmarried. The results of Mann-Whitney *U* test depicted in the Table 3 reveal that a significant difference exists among women employees on the basis of their marital status for perception towards work and total life space dimension of QWL, as the *p* - value in this case is less than 0.05. In most of the cases, the mean rank of unmarried women employees (56.47) is greater than that of married women employees (44.13), which indicates increased satisfaction of the unmarried women employees regarding the work and total life space dimension of QWL compared to married women employees, which implies that unmarried working women had fewer work-life balance issues.

(ii) Testing the Difference in QWL Perception on the Basis of Educational Qualifications : Kruskal - Wallis *H* test was used to compare the mean scores of variables for more than two groups of participants on the basis of educational qualifications. The results depicted in the Table 4 reveal that a significant difference exists among women employees on the basis of their educational qualifications for perception towards the social relevance of the work life dimension of QWL as the *p* - value in this case is less than 0.05. In most of the cases, the mean rank of respondents with a professional degree is greater when compared to respondents having other educational backgrounds, which indicates an increased level of satisfaction among professional degree holders (71.00) followed by PG holders (52.74) and degree holders (43.21) towards the social relevance of the work life dimension of QWL, which implies that higher the educational qualification, the higher will be the perception towards the social relevance of the work life dimension of QWL.

Table 4. QWL and Educational Qualifications

QWL Dimensions	Educational Qualifications	Mean Rank	Kruskal - Wallis *H* Test Statistics (*p* - value)
Social Relevance of Work Life	Higher secondary/Pre-degree	41.88	9.927 (0.042*)
	Degree	43.21	
	PG	52.74	
	Professional	71.00	
	Technical	32.00	

Note. *Significant at the 5% level.

(iii) Testing the Difference in QWL Perception on the Basis of Type of Organization : The results of Kruskal-Wallis *H* test depicted in the Table 5 reveal that a significant difference exists among women employees on the basis of the type of organization in which they are working for perception towards adequate and fair compensation, constitutionalism in the work organization, and social relevance of work life dimensions of QWL as the *p* - values in this case are less than 0.05. When taking into consideration the mean rank of respondents, with respect to adequate and fair compensation, women employees working in manufacturing organizations perceived higher satisfaction (56.42) ; whereas, with respect to constitutionalism and social relevance of work life dimensions, women employees working in service organizations (54.26 & 53.62, respectively) seemed to perceive higher satisfaction. The study clearly reveals that the level of satisfaction towards adequate and fair compensation, constitutionalism, and social relevance of work life dimensions of QWL varies with the type of organization in which the women employees were employed. It is also inferred that different type of organizations engaged in different business activities follow different wage policies, constitutionalism, and social responsibility, which in turn induces them to perceive differently towards such aforesaid QWL dimensions.

(iv) Testing the Difference in QWL Perception on the Basis of Work Experience of Women Employees : The results of Kruskal - Wallis *H* test depicted in the Table 6 reveal that a significant difference exists among women

Table 5. QWL and Organization Type

QWL Dimensions	Organization Type	Mean Rank	Kruskal - Wallis H Test Statistics (p - value)
Adequate and fair compensation.	Manufacturing	56.42	8.949 (0.011*)
	Trading	32.23	
	Service	52.03	
Constitutionalism in the work organization.	Manufacturing	42.54	8.796 (0.012*)
	Trading	34.23	
	Service	54.26	
Social relevance of work life.	Manufacturing	42.96	6.744 (0.034*)
	Trading	35.98	
	Service	53.62	

Note. *Significant at the 5% level.

Table 6. QWL and Work Experience of Women Employees

QWL Dimensions	Work Experience in the Present Organization	Mean Rank	Kruskal - Wallis H Test Statistics (p - value)
Social Integration in Work Organization	Less than a year	53.94	10.795 (0.029*)
	1 - 5 years	46.33	
	5 - 10 years	37.28	
	10 - 15 years	85.00	
	15 years & Above	64.50	

Note. *Significant at the 5% level.

employees on the basis of their work experience in the present organization for perception towards social integration in the work organization dimension of QWL as the p - value in this case is less than 0.05. Women employees with experience ranging from 10 -15 years (85.00) and 15 years and above (64.50) perceived high social integration in the work organization, which clearly implies that social integration in the work organization is one such factor, which contributes to employee satisfaction in an organization. Hence, it is concluded that social integration in the work organization is the most deciding factor contributing to the retention of women employees in private sector organizations.

(v) Testing the Difference in QWL Perception on the Basis of Monthly Income : The results of Kruskal - Wallis H test depicted in Table 7 reveal that a significant difference exists among women employees on the basis of monthly income for perception towards adequate and fair compensation, opportunity to use and develop human capacities, and opportunity for continued growth and security dimensions of QWL as the p - values in this case are less than 0.05. It is also observed that there is a significant difference among women employees on the basis of monthly income they were drawing for perception towards the social relevance of work life dimension of QWL as the p - value in this case is less than 0.01. With respect to QWL dimensions such as adequate and fair compensation and opportunity to use and develop human capacities, women employees who were earning a monthly income above ₹ 30,000 (77.33 & 63.83, respectively) and those who were earning ₹ 20,000 - ₹ 30,000 (62.89 & 58.14, respectively) perceived high agreement when compared to those belonging to other groups. However, women employees who drew a monthly income above ₹ 30,000 (61.67) and between ₹ 10,000 - ₹ 20,000 (54.52) seemed to have a high perception towards opportunity for continued growth and security dimension of QWL.

Table 7. QWL and Monthly Income

QWL Dimensions	Monthly Income	Mean Rank	Kruskal - Wallis *H* Test Statistics (*p* - value)
Adequate and fair compensation.	Below ₹ 10000	44.66	8.361 (0.039*)
	₹ 10000 - ₹ 20000	44.97	
	₹ 20000 - ₹ 30000	62.89	
	Above ₹ 30000	77.33	
Opportunity to use and develop	Below ₹ 10000	37.19	8.028 (0.045*)
human capacities.	₹ 10000 - ₹ 20000	51.44	
	₹ 20000 - ₹ 30000	58.14	
	Above ₹ 30000	63.83	
Opportunity for continued	Below ₹ 10000	37.41	7.969 (0.047*)
growth and security.	₹ 10000 - ₹ 20000	54.52	
	₹ 20000 - ₹ 30000	47.14	
	Above ₹ 30000	61.67	
Social relevance of work life.	Below ₹ 10000	58.02	16.147 (0.001**)
	₹ 10000 - ₹ 20000	38.77	
	₹ 20000 - ₹ 30000	55.32	
	Above ₹ 30000	86.83	

*Note. *Significant at the 5% level, **Significant at the 1% level.*

Table 8. Correlation Between Overall QWL and its Dimensions

QWL & its Dimensions		1	2	3	4	5	6	7	8	9
Overall QWL	Correlation Coefficient	1.00								
	Sig. (1-tailed)	-								
Adequate and fair compensation.	Correlation Coefficient	.765	1.00							
	Sig. (1-tailed)	.000*								
Safe and healthy working conditions.	Correlation Coefficient	.809	.674	1.00						
	Sig. (1-tailed)	.000*	.000							
Opportunity to use and develop	Correlation Coefficient	.494	.317	.488	1.00					
human capacities.	Sig. (1-tailed)	.000*	.001	.000						
Opportunity for continued	Correlation Coefficient	.525	.276	.392	.664	1.00				
growth and security.	Sig. (1-tailed)	.000*	.003	.000	.000					
Social integration in	Correlation Coefficient	.151	.005	.024	-.273	-.182	1.00			
work organization.	Sig. (1-tailed)	.072	.482	.409	.004	.038				
Constitutionalism in	Correlation Coefficient	.791	.470	.494	.533	.605	-.081	1.00		
the work organization.	Sig. (1-tailed)	.000*	.000	.000	.000	.000	.215			
Work and total life space.	Correlation Coefficient	.758	.465	.490	.277	.322	-.034	.648	1.00	
	Sig. (1-tailed)	.000*	.000	.000	.003	.001	.370	.000		
Social relevance of work	Correlation Coefficient	.777	.481	.514	.324	.402	.020	.696	.552	1.00
life.	Sig. (1-tailed)	.000*	.000	.000	.001	.000	.423	.000	.000	

*Note. *Correlation is significant at the 0.01 level (1-tailed).*

Social relevance of work life dimension was perceived highly by women employees drawing a monthly income above ₹ 30,000 (86.83) and below ₹ 10,000 (58.02). Thus, it is inferred that the satisfaction towards income varies among people, and it cannot be confirmed that higher income leads to higher satisfaction, and lower income leads to lower satisfaction. However, perception towards adequate and fair compensation and opportunity to use and develop human capacities is found to be related to the level of income received by the women employees. Finally, the perception towards opportunity for continued growth and security and social relevance of work life is not found to be related to the level of income earned by the employees.

(vi) Correlation Between Overall QWL and its Dimensions : The results of Pearson's correlation coefficient show that all the dimensions of QWL except social integration in the work organization are significantly correlated with overall QWL at the 1% level of significance as the p - value in these cases is less than 0.01 (see Table 8). Thus, hypothesis H2 is accepted in this case except for the correlation between overall QWL and social integration in the work organization dimension of QWL. The nature of correlation is positive for all the other significant cases as the coefficient values are positive. So, it can be inferred that an increase in these dimensions of QWL, that is, adequate and fair compensation, safe and healthy working conditions, opportunity to use and develop human capacities, opportunity for continued growth and security, constitutionalism in the work organization, work and total life space, and social relevance of work life contribute to an increase in overall QWL of women employees working in private sector organizations in Ernakulam district of Kerala.

Managerial Implications

The findings of the present study have several implications for researchers, employers, and practitioners. The present study reveals that unmarried working women have fewer work - life balance issues compared to married women employees. This issue may be resolved by providing necessary flexible working arrangements for women employees. It is revealed that higher the educational qualification and work experience, higher the perception towards social relevance of work life dimension of QWL among women employees in private sector organizations. Thus, the management(s) should take necessary steps to recruit employees with an adequate level of education who are also capable enough to enhance the social integration in the organization. It is also evident from the study that social integration in the work organization contributes to the retention of employees as it is observed that social integration was perceived highly by women employees with higher work experience in their present organization.

It is also revealed that the level of satisfaction towards adequate and fair compensation, constitutionalism, and social relevance of work life dimensions of QWL varies with the type of organization in which the respondents were working. It is also inferred that different types of organizations engaged in different types of activities such as services, manufacturing, and trading follow different wage policies, constitutionalism, and social responsibility, which induces the employees to have different perceptions with respect to the aforesaid QWL dimensions. Whatever the type of activity undertaken by an organization, the management should ensure that the women employees are paid reasonably as per their educational qualifications, work experience, workload, job demands, and skill or knowledge required for the job, which will enhance their perception towards QWL. Women employees must be treated with respect, and rule of law must be equally administered among all the employees irrespective of gender, which confirms constitutionalism in the organization. Giving importance to social responsibility of a business besides profitability will enhance the perception towards social relevance of work life dimension of QWL among women employees.

It is confirmed in the present study that the perception towards QWL dimensions such as adequate and fair compensation, and the opportunity to use and develop human capacities is related to the level of income received

by the women employees. It is obvious that the perception towards adequate and fair compensation dimension of QWL has a direct relation to the level of income earned by the women employees. In order to increase the perception towards the opportunity to use and develop the human capacity dimension of QWL, the managements may introduce other QWL programmes or job redesign techniques through training, job enrichment, job enlargement, and promotion on the basis of employees' experience, skill, and knowledge in their respective work fields.

Finally, it is also revealed that increase in QWL dimensions, that is, adequate and fair compensation, safe and healthy working conditions, opportunity to use and develop human capacities, opportunity for continued growth and security, constitutionalism in the work organization, work and total life space, and social relevance of work life contribute to an increase in overall QWL of women employees in private sector organizations. Thus, the managements of the private sector organizations should focus more on managing these QWL aspects by incorporating the suggestions given above in the company policies in order to enhance the QWL perception among women employees in private sector organizations.

Conclusion

This research contributes to the existing literature by assessing the role of demographic factors on the perception towards quality of work life among women employees in private sector organizations. It is observed in the present study that a significant difference exists among married and unmarried respondents for work and total life space ; educational qualification for social relevance of work life ; organization type for adequate and fair compensation, constitutionalism, and social relevance of work life ; work experience for social integration in work organization ; and monthly income for adequate and fair compensation, opportunities to use and develop human capacities, opportunity for continued growth and security, and social relevance of work life. However, no significant difference exists between age, number of children, and designation of women employees for perception towards QWL. The study also contributes to examining the relationship between overall QWL and each dimension of QWL among women employees in private sector organizations. It is observed that an increase in QWL dimensions such as adequate and fair compensation, safe and healthy working conditions, opportunity to use and develop human capacities, constitutionalism in the work organization, work and total life space, and social relevance of work life can lead to an increase in overall QWL among women employees in private sector organizations in Ernakulam district of Kerala.

Limitations of the Study and Scope for Further Research

The results of the present study limit the generalizability as the study is limited to only 96 women respondents working in private sector organizations situated in Ernakulam district of Kerala. So, a study can be conducted to generalize the current results to male employees at the same job levels. Further investigation should be conducted to confirm the findings by including sample respondents from other major districts of Kerala so that a comparative study can be done. Besides demographic factors, other constructs such as job insecurity, work-family conflict/family-work conflict, work-life balance, turnover intention, etc. may also be considered in future QWL studies.

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