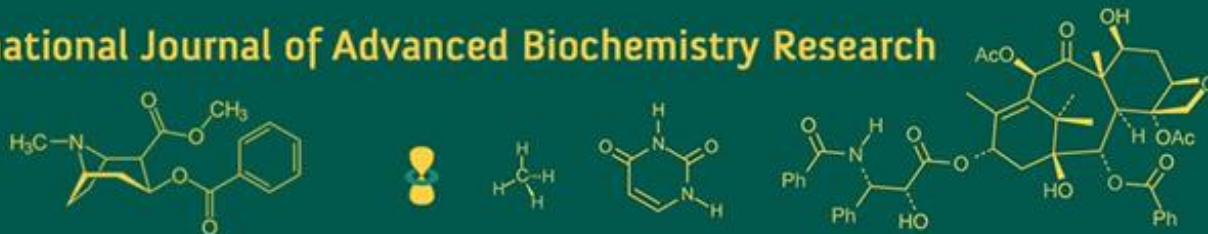


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Study on the structure and functioning of catering establishments: Roles of managers and food handlers

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Abstract

The present study, entitled “A Study on the Structure and Functioning of Catering Establishments: Roles of Managers and Food Handlers”, was carried out to look into the organizational structure, daily operational practices, and the roles of the managerial, plus operational staff in catering establishments. The work used a multiphase descriptive cross-sectional design, and it was conducted in 16 catering establishments, with 8 each from New Delhi (India) and Doha (Qatar). In total 264 respondents were selected, which included 60 managers/supervisors and 204 food handlers. The selection relied on a blend of stratified, snowball, purposive, and convenience sampling methods. Data collection was done through observational checklists, focus group discussions (FGDs), and structured questionnaires, grounded in the Knowledge, Attitude, and Practices (KAP) approach, mostly.

The results showed that most catering establishments functioned using a more structured management system, having valid food licenses and usually applying a two shift routine. Most establishments also had moderate staffing sizes, roughly in the 26-50 employee range, and they served a fairly large customer flow every day. The managers were largely young, male-dominated, and they often had graduate or technical qualifications, while most of them reported less than 10 years of experience. For food handlers, they were also mostly male, relatively young, and were mainly found in skilled as well as semi-skilled categories. Regarding training status, a big portion of both managers (96.67%) and food handlers (93.63%) had received some kind of food safety training, primarily through internal programs. Overall, the study emphasized that cooks and counter staff, they formed the main working group in catering establishments, and this pattern directly affects food quality and service delivery. Overall, the study emphasizes that the effectiveness of catering establishments largely depends on well-defined organizational structures, trained personnel, and coordinated functioning between managers and food handlers. However, gaps in training, awareness, and implementation of food safety practices still exist and require focused attention.

Keywords: Catering establishments, food handlers, food safety, hygiene practices, public health

Introduction

The catering industry is, in a sense a big piece of the food service sector, it provides prepared meals and drinks to a consumer base that keeps growing, pretty fast. Over the past year's urbanization has pushed, along with shifts in lifestyle and higher purchasing power, which in turn has caused a noticeable increase in the demand for food prepared outside the home. Because of that, catering businesses like restaurants, hotels, institutional kitchens, and even cloud kitchens have expanded quite a lot, so their actual structure and how they function matters more and more, for keeping operations efficient, consistent, and safe, (Baum, 2006) [1].

These catering establishments usually work through a clear organizational setup, one that links managerial, technical and day to day roles. The way things perform depends heavily on how well managers and food handlers coordinate together. Food handlers are really the key personnel for the routine, day-to-day tasks (Jevšnik, and Raspor, 2022) [2]. Managers do most of the planning, organizing, supervising, and controlling, they also handle procurement, staffing, quality assurance, and they make sure that everything follows regulatory requirements. They're also important for putting food safety systems into practice, for example HACCP, and for confirming that standard operating procedures are followed properly, (De Oliveira, 2016) [3].

Food handlers, meanwhile, are the ones directly involved in preparing food, processing it, storing it, and serving it. What they do affects food quality, hygiene levels, and how satisfied customers feel (Jacob, and World Health Organization. 1989) [4]. If there is any negligence in food

handling practices, contamination can happen and that brings serious risks to public health. So the knowledge, skills and actual working habits of food handlers become a core factor for how well the catering establishment runs and how effectively it performs, (Kibret, and Abera, 2012) ^[5].

Food handlers, by contrast, are very much directly engaged with food preparation processing, storage, and service. Their actual performance has a direct say in food quality hygiene and, the way customers feel overall. So any kind of carelessness or negligence in food handling practices can cause contamination, hence bringing up serious public health risks (Yusoff, *et al.*, 2012). Because of that, the knowledge, skill sets, and everyday practices of food handlers end up being key things that decide how well catering establishments function and how well they perform, (Overbosch, and Blanchard, 2023) ^[6].

The way catering establishments run usually looks like a chain of linked actions, say procurement of raw materials, storage then preparation, cooking, holding, and finally service. For all of that to work smoothly, you need the right infrastructure, trained staff, plus supervision that is actually effective, (Manko, 2018) ^[7]. Yet, even so, many challenges continue, especially in developing countries where there can be lack of training, not enough infrastructure, and weak monitoring, and all of that reduces operational efficiency, (Marzuki, *et al.*, 2012) ^[8].

In India, the catering industry sits under the Food Safety and Standards Act 2006, and monitoring is carried out by the Food Safety and Standards Authority of India (Kotsanopoulos, and Arvanitoyannis, 2017) ^[9]. These rules and frameworks highlight structured management systems, along with trained personnel, as something necessary for keeping food safety on track and ensuring service quality. Still, even with these rules around, implementation gaps do show up, often because people involved have insufficient awareness, and because there is poor coordination among stakeholders, (Chatterjee, *et al.*, 2023) ^[10]. Given the critical role of both managerial and operational staff, it is essential to understand how catering establishments are structured and how effectively they function. Analyzing the roles and responsibilities of managers and food handlers can provide valuable insights into organizational efficiency and highlight areas requiring improvement, (Goyal, *et al.*, 2017) ^[11].

Materials and Methods

The present study titled “A Study on the Structure and Functioning of Catering Establishments: Roles of Managers and Food Handlers” was done with a multiphase descriptive cross-sectional research design. The study happened in selected catering establishments located in New Delhi (India) and Doha (Qatar), so that we could look at the organizational structure, how operations are done day to day, and what managers and food handlers actually do in their roles.

Selection of catering establishments

A total of 16 catering establishments were selected, including 8 establishments from New Delhi and from Doha. Both Full-Service Restaurants, and Quick-Service Restaurants were included, just to capture the different service models in a more rounded way.

Inclusion criteria

- Establishments operating for at least 5 years
- Standalone restaurants (not situated inside hotel premises)
- Seating capacity between 40-100 customers, broadly speaking
- Valid food license held under State or Central provisions

- Establishments engaged in preparation, storage, and serving of food
- Serving both vegetarian along with non-vegetarian cuisines
- Annual turnover exceeding 12 lakh₹

Exclusion criteria

- Unlicensed establishments
- Food manufacturing units, rather than catering outlets
- Establishments with seating capacity <40 or >100
- Fine dining outlets and purely casual dining outlets
- Non-family-based establishments

Sample size and sampling techniques

The total population of managers and food handlers across the selected establishments was 1240. The sample size was worked out using the Krejcie and Morgan (1970) table, then cross checked with Slovin's formula and it ended up as 264 respondents. The sample included

- 204 food handlers
- 60 managers/supervisors

A multistage stratified sampling technique was first used to pin down the establishments. However, because participation was a bit limited, snowball sampling was used, and honestly it helped us finish the sample. When it came to picking respondents, purposive sampling combined with convenience sampling was adopted, more or less.

Selection of managers

- 1 manager selected where establishments had ≤3 managers
- 2 managers selected where establishments had 4-6 managers
- 3 managers selected where establishments had >6 managers
- Also, representation from both morning and evening shifts was ensured

Study participants

Two broad categories of participants were included

Catering establishments

Managers/supervisors and food handlers (cooks, helpers, delivery staff, housekeeping personnel)

Data collection tools and techniques

Observational Checklist

An observational checklist grounded on the Food Safety and Standards Act 2006 was used to look at infrastructure, hygiene, and the day to day operational practices.

The checklist consisted of:

General information of establishments, and 67 parameters overall covering sanitation, layout, temperature control, pest management, cleaning practices, water supply, and record maintenance

Scoring pattern:

- 3 = Fully compliant
- 2 = Partially compliant
- 1 = Non-compliant

Total scores were from 67 up to 201, and reliability was checked

using Cronbach's alpha ($\alpha = 0.847$), suggesting decent internal consistency.

Focus group discussions (FGDs)

FGDs were carried out to point out obstacles, people's perceptions, plus behavioral drivers that affect food safety and day to day operational practices.

- Total FGDs conducted: 9
- Participants per group: 6-8
- Duration: roughly 45-50 minutes
- Separate sessions were done for managers, food handlers, and owners

A structured checklist (19 items) was used, it covered personal hygiene, handwashing habits, workplace practices, and safety policies. What came out of FGDs helped shape the structured questionnaires.

Structured questionnaires (KAP approach)

Separate questionnaires were created for managers and food handlers to evaluate knowledge, attitude, and practices (KAP).

- Knowledge assessment
- 20 multiple-choice items
- Topics included food safety norms, personal hygiene, temperature control, cross contamination, sanitation, and pest control
- Scoring: 5 marks for each correct answer; total = 100

Passing criteria:

- Managers: $\geq 70\%$
- Food handlers: $\geq 50\%$

Attitude assessment

- 20 statements on a 5-point Likert scale (-2 to +2)
- Overall score range: -40 to +40

Practice assessment

- 20 multiple-choice questions
- Scoring: 5 marks per correct practice (maximum = 100)

Validity and reliability of tools

The instruments were validated for content, and face validity via expert review with academic and industry professionals. A pilot test was also performed on a sample of respondents who were not part of the main study.

Reliability was checked through Cronbach's alpha coefficient (>0.70), meaning the tools had an acceptable internal consistency, overall.

Ethical considerations

Before gathering the data, participants were told about the aim of the study, in general terms. Written agreement was secured from all participants, and they participated voluntarily. Confidentiality of responses was strictly upheld, no exceptions. Participants were also given the option to withdraw from the study at any stage, whenever they wanted.

Results and Discussion

Catering establishments background profile

Within the study, all sixteen 16 catering establishments had a valid food license during the time data was collected, so, that basically means no food business can run without that kind of clearance. At least that's the simple read of it. When the

operational setup was looked at, two patterns came out among the units: conventional operations, 43.75% and commissary operations, 56.25%, as shown in Figure 1.

Catering establishments profile in New Delhi and Doha, Qatar

Table-1 showed that, For New Delhi specifically, the results pointed to a bit of variety in how management was arranged across the surveyed catering establishments. About half of the units, 50%, were controlled by 2 to 5 managers or supervisors. The rest was split evenly, so 25% had less than two managers and 25% had more than five, which is kind of a wide spread really, (Asim, *et al.*, 2019)^[12].

On the employee side, 50% of establishments had a staff strength in the range of 26 to 50 workers. Another 37.5% employed fewer than 25, and the remaining 12.5% employed between 51 and 75. Also, every single establishment (100%) operated seven days a week, no days off, and most of them 75% used a two-shift roster, (Arya, and Delmas, 2021)^[13]

Operating hours weren't identical either. For 75% of establishments, day-to-day functioning was from 08:00 AM to 11:00 PM. Meanwhile, 25% worked from 06:00 AM to 10:00 PM. For seating, the biggest share, 37.5%, had capacity that fit roughly 80 to 100 guests. Footfall across the day also moved around, with 37.5% serving about 100 to 250 customers. In addition, 50% catered to either 250-400 or more than 400 customers per day. Cuisine offerings were also pretty balanced, with vegetarian and non-vegetarian establishments showing equal presence, so, neither side dominated in that particular slice of the data (Ceballos, *et al.*, 2014)^[14].

In New Delhi, the data showed a variety of management structures. Half of the surveyed units, 50%, were run by 2 to 5 managers or supervisors. The other establishments were evenly divided, with 25% having fewer than two managers and 25% having more than five. Regarding number of employees, 50% of caterings employed between 26 and 50 workers. Meanwhile, 37.5% had fewer than 25 employees, and 12.5% fell into the 51 to 75 employee range, (Chen, *et al.*, 2025)^[15]. All establishments, 100%, operated seven days a week. Most of them, 75%, used a twoshift system. Operating hours varied: 75% were open from 08:00 AM to 11:00 PM, while 25% operated from 06:00 AM to 10:00 PM. The data of seating capacity showed that the largest group, 37.5%, could accommodate 80 to 100 guests. Daily customer traffic varied: 37.5% of establishments served 100 to 250 customers. An additional 50% handled either 250 to 400 or over 400 customers each day. Cuisine offerings were balanced, with an equal split between strictly vegetarian and nonvegetarian, (Sethi, 1988)^[16]. In Doha, Qatar, the data indicated that catering establishments had varying managerial strengths. Three units (37.5%) had 2 to 5 managers or supervisors. Three (37.5%) had more than five, while two (25%) had fewer than two. The staffing levels were in the middle range, with three establishments each employing 26 to 50 and 51 to 75 workers (37.5% each). Two establishments had 75 to 100 employees (25%), and none had fewer than 25 (Garayoa, *et al.*, 2011)^[17]. All businesses operated seven days a week. Most were on a two-shift schedule (five units; 62.5%), and three ran a single shift (37.5%). All establishments kept operating hours from 8:00 AM to 11:00 PM. Seating capacity was generally larger. Three establishments accommodated 80 to 100 seats (37.5%), while two each fitted 61 to 80 and 41 to 60 seats (25% each), and one had 40 seats (12.5%). Daily footfall ranged from moderate to high: three served 100 to 250 customers (37.5%). Two

establishments each handled fewer than 100 and 250 to 400 customers (25% each), and one exceeded 400 customers (12.5%). The cuisine was mostly non-vegetarian, with seven establishments (87.5%) offering non-vegetarian menus and one (12.5%) featuring vegetarian options, (Garayoa, *et al.*, 2011)^[17]. The cumulative data of New Delhi and Doha, Qatar, showed that managerial strength was mostly mid-sized. Seven units had 2 to 5 managers or supervisors (43.75%), five had more than 5 (31.25%), and four had fewer than 2 (25%). Staffing levels were concentrated around 26 to 50 employees in seven establishments (43.75%). Following that, four had 51 to 75 employees (25%), three had fewer than 25 (18.75%), and two had 75 to 100 employees (12.5%). All establishments ran seven days a week (100%), and most operated two shifts (11 units; 68.75%), while five had a single shift (31.25%), (Osimani, and Clementi 2016)^[18]. Operating hours were mostly uniform, with 14 establishments open from 8:00 AM to 11:00 PM (87.5%). Two were open from 6:00 AM to 10:00 PM (12.5%), and none operated 24 hours. Seating capacity leaned toward larger venues, as six establishments had 80 to 100 seats (37.5%). Four had 61 to 80 seats (25%), and three establishments each had 41 to 60 and 40 seats (18.75% each). Daily customer footfall was generally moderate. Six establishments served 100 to 250 customers (37.5%), four served 250 to 400 (25%), and three each handled fewer than 100 and more than 400 customers (18.75% each). The cuisine was mainly non-vegetarian, represented by 11 establishments (68.75%), compared to five vegetarians (31.25%), (Powell, *et al.*, 2011)^[19].

Socio-demographic characteristics of managers

The data of socio-demographic characteristics of managers of catering establishment of both New Delhi and Doha, Qatar were given in the table 2 and Fig.-2. There were 60 managers were selected for the study in which 28 from New Delhi, India and 32 from Doha, Qatar.

In New Delhi, the data revealed that out of 28 respondents, 78.57% were male and 21.43% were female. The majority of the managers (57.14%) were below 30 years of age, while 28.57% were in the 31-40 years group, 10.71% in the 41-50 range, and only 3.57% were above 50, (Petkova, 2023)^[20]. Regarding marital status, 64.29% were married, 35.71% were single, and 3.57% were divorced, with none being widowed. Educationally, most managers were graduates (42.86%), followed by those with an intermediate (12th) qualification at 35.71%, 17.86% with a technical qualification, and only 3.57% holding a postgraduate degree. In terms of work experience, half of the managers (50%) had less than ten years of experience, 35.71% had 11-15 years, 10.71% had 16-20 years, and 3.57% had more than 20 years. Designation-wise, 32.14% served as assistant unit heads, 25% as supervisors, 21.43% as unit managers, and 10.71% each as team leaders and others, indicating a predominance of mid-level managerial positions within these catering establishments, (Popova, and Miteva, 2024)^[21].

In Doha, Qatar, the socio-demographic data of managers of catering establishment showed that all 32 respondents were male, indicating complete male dominance in managerial positions. In terms of age distribution, 34.37% were below 30 years, 31.25% were within 31-40 years, 25% were in the 41-50 range, and 9.37% were above 50 years, (Jovičić-Vuković, 2020)^[22]. Regarding marital status, a large majority of managers (78.12%) were married, while 18.75% were single, and none reported being divorced or widowed. Educational data revealed that 40.62% were graduates, 37.5% had technical qualifications,

12.5% had completed intermediate education, and 9.37% were postgraduates, reflecting that most managers had at least a graduate or technical background. Concerning work experience, over half of the respondents (56.25%) had less than ten years of experience, followed by 37.5% with 11-15 years, and 6.25% with 16-20 years, while none had experience exceeding 20 years. As for designations, 34.37% of the managers served as assistant unit heads, 25% as supervisors, 21.87% as unit managers, 12.5% as team leaders, and 6.25% held other positions, indicating a notable concentration of mid-level professionals overseeing catering operations in Doha, (Fraikue, 2016,)^[23].

The cumulative socio-demographic data of catering establishment managers revealed that out of 60 respondents, 90% were male and 10% were female, indicating male predominance in managerial positions. Age-wise, 45% of the managers were below 30 years, 30% were between 31-40 years, 18.33% were in the 41-50 range, and only 6.67% were above 50 years, (Esu, 2015)^[24]. Regarding marital status, 71.67% were married, 26.67% were single, and 1.67% were divorced, while none were widowed. Educationally, most of the managers were graduates (41.67%), followed by those holding technical qualifications (28.33%), 23.33% with intermediate qualifications, and only 6.67% with postgraduate degrees. In terms of work experience, over half of the respondents (53.33%) had less than ten years of experience, 36.67% had 11-15 years, 8.33% had 16-20 years, and only 1.67% had more than 20 years of service. The distribution of designations showed that 33.33% worked as assistant unit heads, 25% as supervisors, 21.67% as unit managers, 11.67% as team leaders, and 8.33% held other designations, indicating that most managers were positioned at mid-level managerial roles within the catering establishment, (Šmugović, *et al.*, 2025)^[25].

The data of food safety training of managers of catering establishments in New Delhi and Doha, Qatar revealed that 57.14% of managers in New Delhi have undergone internal food safety training programmed, 35.71% external food safety training and just 7.14% were never trained in this area. In Doha's case, 46.88% of managers attended internal training and 53.13 for external training; there was no reference to non-participation for this variable, (Donkor, 2012)^[26]. Taken cumulatively, over half the managers in the two countries had ever attended internal food safety training (51.67%), just less than half external training (45%) and only 3.33% had never been trained on food safety. These results indicate that most catering managers received some form of food safety training, with a relatively balanced emphasis between internal and external programs across both regions, (Chen, *et al.*, 2025)^[15].

Socio-demographic characteristics of food handlers

The data of socio-demographic data of food handlers of New Delhi, Doha, Qatar and cumulative data presented in the table 3. Total 204 food handlers selected for the study in which 93 from New Delhi, India and 111 from Doha, Qatar.

In New Delhi, the data revealed that among 93 food handlers, 86.02% were males and 13.98% were females showing that this employee is male dominated. Regarding age distribution, 60.22% were under the age of 30 years, 21.51% were between 31-40 years, 15.05% were between 41-50 years and 3.23% were above 50 years. On the marital status, 55.91% of the food handlers were single whereas 44.08% of them were married and no one was divorced, (Naing, 2002)^[27]. Most of them were educated (24.73%) to graduation and thereafter to 10th grade (22.58%), 6th-th grade (15.05%) and 11th-th grade (13.97%). A

lower%age received postgraduate (2.15%) or diploma qualifications (3.22%), 8.6% had no schooling at all and 10.75% had only reached the 5th grade. According to the work experience, 41.93% had 1-5 years experience, 29.03% had experience of 6-years, 15.05 experienced less than a year, 10.75 had experience of 11- 20 years and 3.22 years had more than 20 years experience. Most food handlers were semi-skilled by designation (56.98%), then skilled (30.10%) and unskilled workers (12.90%), so the labor force in the catering sector was dominated in lower and mid-skill ranges, (Chen, et al., 2025) [15].

The data of food handlers in Doha, Qatar, in catering establishments indicated that of the total food handlers ($n=111$) 95.50% of the food handlers were male, and only four point five% were female, hence there was the dominance of males in food handling workforce. Regarding their age, 67.57% of the food handlers were younger than 30 years, 23.42% were between 31-40 years, 7.21% were between 41-50 years and only 1.80% were older than 50 years. On marital status, 52.25% were married and 47.75% single with none being divorced (Sezer, 2024) [28]. The educational profile showed that 38.74% were graduates, 26.13% had finishedth-th grade, 15.32% had attained an education toth-10th grade and 8.11% had an educational education to 6th-8th grade. Some had postgraduate (5.41%) or diploma qualifications (1.80%) but minor numbers were post-graduate (3.60%) or higher (3.60%), had never attended school (3.60%), or had only 5 th grade qualification (0.00%). Regarding work experience, 59.46% were experienced between 1-5 years of work, 18.92% had between 6-years of experience, 12.61% had between 11-20 years' experience, 6.31% had less than one years' experience and the rest were more than 20 years of experience. Most of the food handlers were skilled (60.36%), semi-skilled (34.23%), and only a small proportion of the 5.41% were unskilled as per designation; this indicates a relatively higher skill level among the members of the workforce in the catering field in Doha, Derso, et al., 2017) [29]. The cumulative data of food handlers of New Delhi and Doha, Qatar catering establishments revealed that food handlers were almost entirely male with only 8.82% female represented by a significant male workforce. With regard to age, most handlers (64.22%) were below 30 years, 22.55% between 31-40 years, 10.78%, Ncube, et al., 2020) [30]. between 41-50 years, and the remaining 2.45% above 50 years. On the marital status, 51.47% were single and 48.53% were

married and none was divorced. In education, there were 32.35% graduates, 20.59% completedth -th grade, and 18.63% who had a level of education of 9th -10th grade. Less proportions were those with 6 to 8th grade education (11.27%), to 5th grade (4.90%), postgraduates (3.92%), diploma holders (2.45%), and those who never attended school (5.88%), (Bobhate et al., 2011) [31]. The data on work experience revealed that 51.47% of food handlers had 1-5 years of experience, 23.53% of 6-10 years, 11.76% 11-20 years, 10.29% less than one year, and 2.94% more than 20 years. Latin to job types, 46.57% of those were in skilled, 44.61% in semi-skilled, 8.82% in unskilled, which indicates that the proportion of highly experienced and technically proficient food handlers in the catering operations was rather high, Chen, et al., 2024) [32].

The data of the job titles of food handlers (Figure-4.3) in food catering businesses showed that in New Delhi 30.11% of food handlers were employed as cooks, 23.66% as assistant cooks, 22.58% as counter boys, 13.98% as helpers and 9.68% as other jobs, (Uggioni, and Salay, 2012) [33]. In Doha, Qatar, 36.94% of all food handlers were cooks, 27.93% counter boys, 18.02% assistant cooks, 12.61% helpers, and 4.50% occupied other jobs. When the data were pooled together cumulatively, constitutions of the total of food handling workforce were cooks at 33.82%, counter boys at 25.49%, assistant cooks at 20.59%, helpers at 13.24%, and others at 6.86%. This shows that cooks and counter boys constituted most of the food handlers in both regions, as they are the roles of the perpetrators of the operations in food catering premises, (Kundu, et al., 2021) [34].

The data regarding training status of food handlers (Figure-4.) in catering establishments showed that in New Delhi, 67.74% of the food handlers underwent training programs in their organization, 21.51% underwent training programs outside the organization and 10.75% never had any training, (Bobhate, et al., 2011) [31]. Qatar has achieved a huge%age of 65.77% internal training, 31.53% external training, and 2.70% had no training in Doha, Qatar. In the case of cumulative combination of the data, 66.67% of food handlers in the two regions had undergone internal training, 26.96% had undergone external training and 6.37% had not undergone any training whatsoever. These results indicate that internal training was the most common food safety education among the catering staff and this is a consistent reflection of in-house training on skills and hygienic awareness at both facilities, (Amaich, et al., 2024) [35].

Table 1: Background information of the catering establishments

S. No.	Parameter	New, Delhi		Doha, Qatar		Cumulative	
		n	%	n	%	N	%
1	Number of managers/Supervisors						
	<2	2	25	2	25	4	25
	2 to 5	4	50	3	37.5	7	43.75
	>5	2	25	3	37.5	5	31.25
2	Total Number of Employees working						
	<25	3	37.5	0	0	3	18.75
	26-50	4	50	3	37.5	7	43.75
	51-75	1	12.5	3	37.5	4	25
	75-100	0	0	2	25	2	12.5
3	Operational Days/week						
	5 days	0	0	0	0	0	0
	6 days	0	0	0	0	0	0
	All 7 days	8	100	8	100	16	100
4	Number of Shifts						
	One	2	25	3	37.5	5	31.25
	Two	6	75	5	62.5	11	68.75
5	Operational Timings						

	6:00am to 10:00pm	2	25	0	0	2	12.5
	8:00am to 11:00pm	6	75	8	100	14	87.5
	Open 24 hours	0	0	0	0	0	0
6	Seating Capacity						
	40	2	25	1	12.5	3	18.75
	41-60	1	12.5	2	25	3	18.75
	61-80	2	25	2	25	4	25
	80 -100	3	37.5	3	37.5	6	37.5
7	Number of Customers visit per day						
	<100	1	12.5	2	25	3	18.75
	100-250	3	37.5	3	37.5	6	37.5
	250-400	2	25	2	25	4	25
	>400	2	25	1	12.5	3	18.75
8	Cuisine Types						
	Vegetarian	4	50	1	12.5	5	31.25
	Non-vegetarian	4	50	7	87.5	11	68.75

Total 16 catering establishment in which 8 from New Delhi, India and 8 from Doha, Qatar

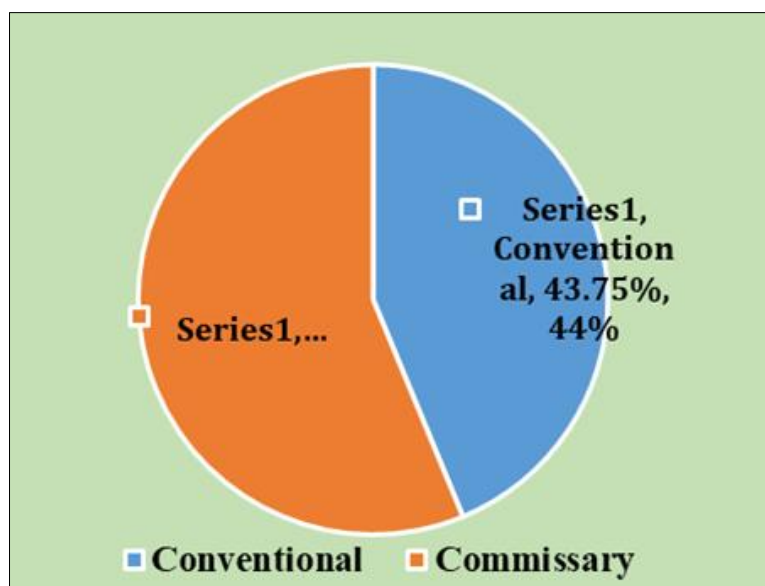


Fig 1: Catering service style (16)

Table 2: Socio demographic characteristics of managers

	Parameter	New, Delhi		Doha, Qatar		Cumulative	
		n	%	n	%	n	%
1	Gender						
	Male	22	78.57	32	100	54	90.00
	Female	6	21.43	0	0	6	10.00
2	Age						
	<30	16	57.14	11	34.37	27	45.00
	31-40	8	28.57	10	31.25	18	30.00
	41-50	3	10.71	8	25	11	18.33
	>50	1	3.57	3	9.375	4	6.67
3	Marital Status						
	Single	10	35.71	6	18.75	16	26.67
	Married	18	64.29	25	78.12	43	71.67
	Divorced	1	3.57	0	0	1	1.67
	Widower	0	0.00	0	0	0	0.00
4	Education						
	12 th (Intermediate)	10	35.71	4	12.5	14	23.33
	Graduation	12	42.86	13	40.62	25	41.67
	Post-Graduation	1	3.57	3	9.37	4	6.67
	Technical Qualification	5	17.86	12	37.5	17	28.33
5	Working Experience						
	<10yrs	14	50.00	18	56.25	32	53.33
	11-15yrs	10	35.71	12	37.5	22	36.67

	16-20 yrs	3	10.71	2	6.25	5	8.33
	>20 yrs	1	3.57	0	0	1	1.67
6	Designations						
	Unit Manager	21.43	7	21.87	13	21.67	21.43
	Asst. Unit head	32.14	11	34.37	20	33.33	32.14
	Supervisor	25.00	8	25	15	25.00	25.00
	Team leader	10.71	4	12.5	7	11.67	10.71
	Other	10.71	2	6.25	5	8.33	10.71

Total 60 managers were selected for study in which 28 from New Delhi, India and 32 from Doha, Qatar



Fig 2: Food safety training of managers

Table 3: Socio demographic Characteristics of Food Handlers

S. No.	Parameter	New Delhi		Doha, Qatar		Cumulative	
		n	%	n	%	N	%
1	Gender						
	Male	80	86.02	106	95.49	186	91.18
	Female	13	13.97	5	4.50	18	8.82
2	Age						
	<30	56	60.21	75	67.56	131	64.22
	31-40	20	21.505	26	23.42	46	22.55
	41-50	14	15.05	8	7.20	22	10.78
	>50	3	3.226	2	1.80	5	2.45
3	Marital Status						
	Single	52	55.91	53	47.74	105	51.47
	Married	41	44.08	58	52.25	99	48.53
	Divorced	0	0.00	0	0.00	0	0.00
4	Education						
	Up to 5 th Grade	10	10.75	0	0.00	10	4.90
	6 th to 8 th Grade	14	15.05	9	8.10	23	11.27
	9 to 10 th Grade	21	22.58	17	15.31	38	18.63
	11 to 12 th Grade	13	13.97	29	26.12	42	20.59
	Graduation	23	24.73	43	38.73	66	32.35
	PG	2	2.15	6	5.40	8	3.92
	Diploma	3	3.22	2	1.80	5	2.45
	Never went to school	8	8.60	4	3.60	12	5.88
5	Working Experience						
	0 to 11 months (< 1 year)	14	15.05	7	6.30	21	10.29
	1To 5yrs	39	41.93	66	59.45	105	51.47
	6 to 10yrs	27	29.03	21	18.91	48	23.53
	11-20 yrs	10	10.75	14	12.61	24	11.76
	>20 yrs	3	3.22	3	2.70	6	2.94
6	Designations						
	Skilled	28	30.10	67	60.36	95	46.57
	Semi-skilled	53	56.98	38	34.23	91	44.61
	Unskilled	12	12.90	6	5.40	18	8.82

Total food handler was 204 in which 93 from New Delhi, India and 111 from Doha, Qatar

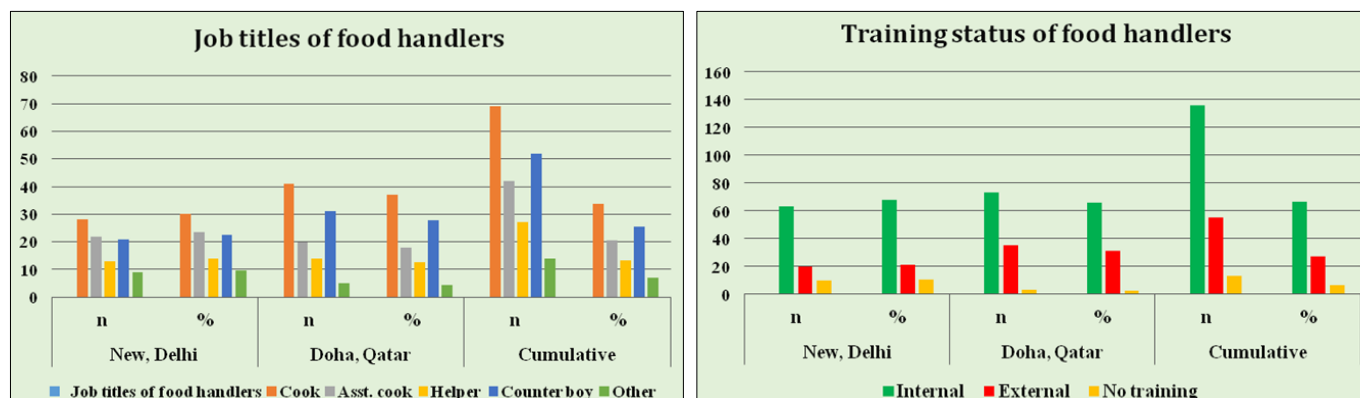


Fig 3: Training status of food handlers

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