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Service Research in Asia: Research Paradigm and Productivity

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Abstract

The paper traces the journey of service research by analyzing the articles contributed by researchers from Asia based on research productivity and research paradigm. The research analyzes top service journals from 2009 to 2016. The findings suggest high productivity of researchers from Taiwan. Survey research is widely used followed by mathematical modeling, lab experiments, interviews, conceptual modeling, theoretical modeling, and case study. Most researched topics observed such as customer satisfaction and relationship, service quality and performance, service marketing, service delivery, and service operations. The study provides valuable insights and highlights the contributions of Asian researchers to the field.

Keywords: Service Research, Asia, Research Productivity, Research Paradigm

Introduction

Since the establishment of service research as an academic branch of knowledge in the late 1980s, researchers such as Edvardsson et al. (2005), Lemmink (2005), and Rust et al. (2004) have called to expand the research in services beyond marketing and developing it as a multi-disciplinary field. Following that, research in service operations has been receiving an increasing attention from scholars such as Lemmink (2005), Bretthauer (2004), and Rust et al. (1995), who have sought to review and reflect on the advancements in service literature. Despite these efforts, a systematic analysis of studies published in the services area continues to be the missing link.

There have been previous studies which reviewed and reflected on research related advancements through systematic reviews of published articles within the areas of management and marketing (Svensson et al., 2008(a & b); Mudambi et al., 2008; Babin, 2008; Brady and Allen, 2006; Polonsky et al., 2006; Sousa and Voss, 2002; Babbar et al., 2000). But, similar efforts are missing in the area of service research except a few review articles. One of the notable reviews is by Svensson et al. (2008b). They examined regional affiliation of researchers, and research design over a period of six years (2000-2005) to investigate the scientific identity of top services marketing journals. However, their study did not take into account the research topics, research productivity of various individuals and institutions, and service industries addressed in the articles. They recognized that researchers from Asia accounted for about twelve percent of the total articles published in the journals under review, ranking third after the researchers from North America followed by their European counterparts. In another article, Pilkington and Chai (2008) explored key topics in the area of service research in *Journal of Service Management* deploying citation and co-citation analysis. The researchers proposed customer satisfaction and service quality to be the key topics of focus in service research. They also noticed a substantial increase in the articles published by Asian researchers (14 percent in 2001-2005 from 3 percent in 1996-2000) and highlighted the increasing importance of research in services area among the researchers in Asian countries and an upward trend in the number of articles published as an important performance indicator for universities in Asia. Tan et al. (2010) identified the contribution of Asian researchers in service research over an extended period of fourteen years (1995-2008). They reviewed the research design and research productivity of Asian researchers at three levels of aggregation namely: macro (country), meso (university) and micro (individual). However, the study did not

delve into the sub-topics studied in service research, and the industry from which the data for research was collected.

Given the rapidly increasing popularity of service research in Asia, it becomes important to identify the most popular sub-topics in service research, service industries of interest to Asian researchers and the countries, institutions, and individuals with highest productivity in Asia.

As suggested by Babbar et al. (2000), timely evaluation of publication in a field helps in expediting the interactions within the research community and thus provides credit to the works of respective researchers. In spite of this, only a few studies have explored the contribution of Asian researchers in service research area. Hence, a study on contributions made by Asian scholars to the area of services research in recent times remains a link unexplored. Identifying this gap, the current study aims to assess and evaluate the research topics studied, methodology used, and productivity of Asian researchers by reviewing the studies published in leading service journals.

We follow the published articles by Svensson et al. (2008b) and Tan et al. (2010) which together specify five journals serving as reputable outlets for publishing service research. The journals identified by them are: Service Industries Journal (SIJ), Managing Service Quality (MSQ), Journal of Service Research (JSR), Journal of Services Marketing (JSMKT), and International Journal of Service Industry Management (IJSIM). According to Tan et al. (2010), these journals are “*the longest serving journals in the field of service research and are not concentrated on a specific geographical region*”. We added Services Marketing Quarterly (SMQ) to our study as it is a popular journal among service researchers owing to the relevance and high quality of research in services area.

It should be noted that IJSIM was renamed as Journal of Service Management in 2009 and MSQ was renamed as Journal of Service Theory and Practice in 2015. All the six journals considered

for our study have high impact factor among other similar journals (refer Table 1). Also, all the papers published in these journals are observed to be associated to services, thus providing a comprehensive sample for our study.

Insert Table 1 here

The primary objective of this research is to empirically analyse the research productivity of Asian authors in service research. Also, the researchers aim to assess the methods used for service research, core themes and sub-topics being researched and the industry in which the research was carried out. The article starts with an explanation of the methodology used, followed by the discussion of results. Finally, the contributions and limitations of the current study are discussed in the conclusion section.

Methodology

As the aim of this study is to analyze the contribution made by Asian researchers in service research area, the researchers collected all the articles published by Asian scholars in the top six service journals from 2009 to 2016. The rationale behind selecting this time period is that no study was conducted in the last eight years examining the contribution of Asian researchers to the service research. The last attempt towards assessing the productivity of Asian researchers to service research was by Tan et al. (2010) where the authors analyzed the articles from 1995 to 2008.

All published articles (excluding book reviews and editorials) from 2009 to 2016 in the above mentioned journals were examined carefully. A two phase data collection approach was used in order to attain the aim of the study. First, all the articles published over our study period in the selected journals were critically examined to focus on the studies published by Asian scholars only.

An article was assigned to an institute or country if any of the contributor in the paper was affiliated to that institute or country. Then, an extensive content analysis was conducted for all the articles authored by researchers from Asia. After identifying the articles, a detailed profile of all the articles was generated comprising of various fields such as the publication year, journal, research topic addressed, key research interest and keywords, industry, research methodology used, researcher's affiliation, and country. A total of 559 articles were identified with at least one author from an Asian country (as shown in Table 1). The papers were then classified on the basis of research paradigms, industry, and sub-topics.

Research Paradigms

Following Meredith et al. (1989), researchers investigated the research approach within the service research area along two dimensions, natural/artificial and rational/existential. The former corresponds to the source and kind of information used in research whereas the latter pertains to the epistemological structure of the research process. The rational/existential dimension is further classified into four perspectives explained briefly below:

1. *Axiomatic*: The perspective involves a high degree of assumptions and is deductive in nature. It includes methods such as mathematical models, theorems, and mathematical proofs.
2. *Logical positivist/empiricist*: This perspective assumes that it is possible to isolate the event under consideration from the context in which it occurs. Further, the observations are not dependent on the theories and laws used in explaining those observations.
3. *Interpretive*: This perspective contains the “*context*” of the event as a segment of the object of the study. Interpretivists study people and focus on the interpretations and meanings instead of behavior.

The natural/artificial dimension is further classified into three categories explained briefly below:

1. *Object reality*: This perspective deals with the direct observation of the event by the scholar. It presumes that there is an “*objective reality*” detectable by human senses.
2. *People’s perceptions of object reality*: This perspective points towards research that is carried “*through somebody else’s eyes,*” as it happens in interviews and surveys. The major concern here is with the abstract representation or perception of reality of the respondent.
3. *Artificial reconstruction of object reality*: This perspective points towards the reconstruction of reality, as initially discovered from one of the two categories mentioned above, into another form that is more suitable for experimentation and testing, such as computer simulations or analytical models.

The research methodologies used by Asian researchers to explore service research fall across the quadrants of the framework suggested by Meredith et al. (1989) discussed further in the result section.

Sub-Topics/Themes

The published articles were classified into research themes and sub-topics provided by Pilkington and Chai (2008). The articles were then placed in a two dimensional matrix where one dimension represented the relevance of the topic to Operations Management (OM) area whereas the other dimension represented the relevance of the topic to Marketing Management (MM) area. To make this selection, six independent experts¹ (3 in OM and 3 in Marketing) in the field of service research were asked to assign the topics to various quadrants. Based on the majority of the respondents, the topics were assigned to the respective quadrants. The major themes identified in

¹ The experts are Professors in different Indian Institute of Management schools. They have more than 15 years of teaching experience in the Marketing and/or Operations Management areas. The 3 experts were selected from the Marketing area with experience in teaching and research in Services Marketing. Three other experts were from the Operations Management area with experience of teaching and research in Service Operations.

the current study are: new service development; service operations; service technology; service quality and performance; service characteristics and classification; service delivery; service recovery; service innovation; employee attitude and emotion; service integration; value co-creation; customer satisfaction and relationship; market positioning; and service marketing.

Industry

The articles were examined and assigned the service industry from which the data was collected. The studies, which collected data from more than two industries, were put under generic industry and similarly, the conceptual and theoretical papers were not assigned to any specific industry.

The industries identified by researchers in the current study are as follows:

- | | |
|---------------------------------|--|
| 1. Automobile Repair | 9. Hotel and Lodging |
| 2. Banking and Finance | 10. IT Communication and Social |
| 3. Business Services | 11. Manufacturing |
| 4. Education | 12. Medical and Health |
| 5. Entertainment and Recreation | 13. Restaurant |
| 6. e-Retail | 14. Retail Trade |
| 7. Generic | 15. Travel and Transportation Services |
| 8. Government | 16. Welfare |

Research Productivity

Following Tan et al., (2010), the researchers evaluate research output of Asian scholars at three levels of aggregation where:

- (1) Micro level concerns with an individuals' academic publication output;
- (2) Meso-level concerns with an institutions' academic publication output; and
- (3) Macro level concerns with a country's' academic publication output.

For articles with multiple authors, the authors used normal counting and fractional counting method following Tan et al., (2010). In the normal counting method, an article is credited equally to each co-author and each co-author receives a count of one (Tan et al., 2010; Palvia and Pinjani, 2007; Bakir et al., 2000). Whereas in the fractional count method, each co-author receives an equally distributed fraction of the total count for a published article (Tan et al., 2010; Glanzel, 2003; Lindsey, 1980). For instance, if an article is published by five authors who belong to three countries, each contributor receives a score of 0.20 and each their respective countries also receive a credit of 0.20. There is a discourse on the usage of the two counting methods with some researchers believing that fraction count presents a more holistic description of research output (Cheng et al., 2003; Bakir et al., 2000; Im et al., 1998; Lindsey, 1980) whereas normal counting method is advocated in some other fields (Dwivedi et al., 2008; Palvia and Pinjani, 2007; Glanzel, 2003). The current work deploys both methods in order to present an extensive account of productivity at the three levels mentioned above.

RESULTS

Research Productivity

As mentioned in the methodology section, the researchers have analyzed research productivity at three levels of aggregation: micro (individual), meso (university), and macro (country) as suggested by Glanzel (2003). The findings for each level is discussed in subsequent sections.

Productive authors

The “*total number of articles published*” was used as an indicator in order to examine research productivity at individual level. Table 2 enumerates the top ten researchers listed on the basis of their counts calculated using the fractional and normal count approach. Only scholars with five or more publications on the basis of the normal count are considered for the purpose of reporting.

It is fascinating to note the difference in the rankings based on normal count method and fraction count method. The author ranked first has a normal count of 14 but the fractional count is 4.15 which shows that most of his papers were written in collaboration with other researchers. Whereas, the author ranked fourth on the list has a normal count of six but his fractional count is highest (4.53) among other researchers showing that most of his papers were single authored. Similarly, the difference in ranking by normal and fraction count of other researchers shows that the researchers with high normal count but relatively less fraction count have more collaborations with foreign authors in comparison to researchers with high fraction count. Also, it can be noted that a high fraction of published papers affiliated to Singapore is primarily because of the high productivity of a single scholar. Whereas, researchers from Taiwan feature most frequently among the top contributors to the field in Asia.

Insert Table 2 here

Productive institutions

The total number of articles published is used as an objective benchmark to establish the top institutions in a region (Tan et al., 2010; Palvia and Pinjani, 2007; Bakir et al., 2000). Table 3 presents a list of the top fifteen Asian institutes sorted by their fractional and normal counts. We summarized our findings for only those institutions that accounted for fifteen or more studies on the basis of their normal count in the selected journals over the concerned period. A paper was credited to the university if the author was affiliated to the university during the publication. The rankings of the institutions varies faintly in the two methods. National Chung Cheng University, which is ranked tenth by normal count does not even appear in the ranking list by fraction count

and National University of Kaohsiung, ranked fourteenth on fraction count does not appear on normal count. Again, this difference is due to the collaboration of multiple authors with different affiliations. The supremacy of Taiwanese universities is clearly observable by both approaches as eleven out of the top fifteen universities belong to Taiwan. It is interesting to notice that Hong Kong is ranked sixth among the most productive countries with 44 publications (by normal count) out of which Hong Kong Polytechnic University accounts for 36 published articles. This shows the concentration of research in a particular region of the country. Similarly in Singapore, majority of the articles published are from National University of Singapore and that too from a particular researcher. “A fewer number of scholars in a given field may limit an area of study and reduce the diversity of research topics and disciplines” (Tan et al., 2010). For the other countries such as Taiwan, South Korea and China the publications are more evenly distributed among the research universities.

Insert Table 3 here

Productive countries

It is clearly visible through a Pareto analysis that a few countries in Asia such as Taiwan, Korea, China, and India are the major contributors (refer Table 4). They accounted for around 80 percent of the total articles published during the period studied. A Pareto syndrome or the 80/20 syndrome is clearly noticeable in view of this result which is similar to the observation made by Tan et al., (2010). This syndrome has also been observed in other areas of research (Svensson and Wood, 2006; Svensson, 2006, 2005; Rosenstreich and Wooliscroft, 2005).

The large differences between the normal counts and fractional counts for countries such as Taiwan, South Korea, China, India, Israel, Hong Kong, Singapore and other countries indicate that a significant fraction of articles from these countries are an outcome of collaborative research with international scholars.

It can be noted that some of the countries such as Taiwan, South Korea and Hong Kong are inclined towards a particular journal. For instance, around 73 and 53 percent of the articles with Taiwanese and South Korean affiliation respectively were published in Service Industries Journal (SIJ). Similarly, around 50 percent of the articles published in Hong Kong were published in Journal of Service Marketing (JSMKT). For other countries such as China, India and Singapore, no such bias was observed.

Insert Table 4 here

Research Methodology

The analysis shows that the studies published by Asian researchers in the selected journals used the following research methods: event study, field experiment, field study, case study, structured interview, survey, focus group discussion (FGD), mathematical modeling, lab experiment, simulation, conceptual modeling and theoretical modeling as shown in Table 5. The researchers observed a count of 716 research methods from the review of 559 articles. 409 articles employed a single research method, 141 employed two research methods, seven articles applied three research methods, and one article used four research methods (refer Table 6).

Figure 1 illustrates the widespread use of the survey method in service research area recording a count of 370 out of 716 research methods used. Other prominent research methods observed in our

study are mathematical modeling, lab experiment, case study, interview methods, theoretical modeling and conceptual modeling. Around 60 articles employed secondary data (mostly for mathematical modeling) where as others used primary data. More than 70 percent of the studies undertaken (468 out of 656) fall under the logical positivist/empiricist category on the rational to an existential continuum with an emphasis on people's perception of object reality showing the current research paradigm of Asian researchers in service research.

The researchers conclude that the majority of the articles use empirical research with quantitative methods (around 539 out of 656) such as mathematical modeling, survey research, simulation etc. whereas the articles based on qualitative methods (around 117 out of 656) are few in number.

Insert Figure 1 here

Insert Table 5 here

Insert Table 6 here

Sub-Topics/Themes

Out of the 559 articles identified for analysis, 398 addressed a single service research topic, 140 were concerned with two service research topics and another 18 corresponded to three service research topics. As a result, a total count of 732 topics was obtained out of all the articles considered as shown in Table 7.

Figure 2 shows a matrix of topics in service research placed on two dimensions (Operations Management and Marketing Management). The topics such as market positioning and service marketing are highly relevant to marketing literature and not much relevant to the operations literature whereas topics such as new service development (NSD) and service operations are highly relevant to operations literature and not much relevant to the marketing literature. Also, topics such service characteristics and classification, service delivery and service recovery are highly relevant to both, marketing and operations literature. The matrix shows that the count of topics highly related to marketing is higher than the count of topics highly related to operations which suggest that the service research is still dominated by marketing field.

As mentioned in the methodology section the published articles were classified into research themes and sub-topics provided by Pilkington and Chai (2008) but the researchers identified some new topics that were not listed by Pilkington and Chai (2008) such as service integration and service climate. The most common topics among Asian service researchers are customer satisfaction and relationship, service quality and performance, employee attitude and emotion, market positioning, service marketing, service delivery, service operations, service innovation, service recovery and service technology. It is interesting to note that 633 sub-topics were highly or moderately related to service operations and 651 sub-topics were highly or moderately related to service marketing which shows that service research is more of an interdisciplinary area rather than belonging to one end of the spectrum (refer Figure 2).

Insert Figure 2 here

Insert Table 7 here

Industry

The analysis shows that most of the service research in Asia has been carried out in banking and finance sector followed by retail, IT communication and social, hotel and lodging, and medical and health respectively (shown in Table 8). Also, e-retail, restaurant and travel and transportation industry have also been represented in several article. The analysis shows that 512 articles address a single industry and 26 articles addressed two industries. It is worth noticing that 60 articles had data from multiple industries or they did not mention any specific industry and hence have been put into the generic category. The researchers conclude that the Asian researchers are looking towards the modern industries such as e-retail and business services and have maintained distance from the traditional services such as agriculture, construction services, laundry, legal, engineering, and wholesale trade services.

Insert Table 8 here

Conclusion

The present study adds to the service research literature by highlighting the contributions of Asian researchers to the field. This was done by critically examining the articles published in top service journals such as Journal of Service Research, Journal of Service Management, Journal of Service Marketing, Journal of Service Theory and Practices, Service Industries Journal, and Services Marketing Quarterly. The time period for the study was from 2009 to 2016. The researchers have

analyzed research output of Asian scholars published in the above mentioned journals at micro, meso and macro levels using both, the normal and fractional count approach. The analysis shows Taiwan to be the most productive country and highly dominating over other Asian countries at all the three levels. But there is no single author or institute which accounts for a considerable proportion of all the articles published.

The researchers also identified dominant research paradigms amongst the Asian scholars in the field of service research and found that majority of the articles were empirical in nature and were analyzed using quantitative methods. There is a widespread use of the survey method in service research followed by mathematical modeling, lab experiment, interview methods, conceptual modeling, theoretical modeling and case study. The most common topics among Asian service researchers are customer satisfaction and relationship, service quality and performance, employee attitude and emotion, market positioning, service marketing, service delivery and service operations. The analysis also shows that most of the service research in Asia published has been carried out in Banking and Finance sector followed by retail, IT communication and social, hotel and lodging, medical and health, e-retail and entertainment and recreation respectively.

This study, just like any other study, has limitations. One such limitation is the limited number of articles considered for the study. Future studies can consider articles from more journals and conferences. Also, geographical regions other than Asia might also be explored in order to triangulate and compare the findings.

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Table 1: Contribution of Asian researchers in top service journals

Journal	Impact Factor	Articles by Asian Researchers	Percentage of total
Journal of Service Management (JSM)	2.897	42	7.51%
Journal of Service Marketing (JSMKT)	1.811	84	15.02%
Journal of Service Research (JSR)	6.847	24	4.29%
Journal of Service Theory and Practice (JSTP)	1.098	79	14.13%
Service Industries Journal (SIJ)	1.172	280	50.08%
Services Marketing Quarterly (SMQ)		50	8.94%
Total		559	100%

Table 2: Most productive Asian researchers

Author	Institute	Normal Count	Fraction Count	Rank By Fractional Count
Jochen Wirtz	National University of Singapore	14	4.15	2
Piyush Sharma	Hong Kong Polytechnic University	8	3.23	5
Won-Moo Hur	Pukyong National University	7	2.19	9
Hong-Youl Ha	Dongguk University	6	4.53	1
Edward Shih-Tse Wang	National Chung Hsing University	6	4.08	3
Jiun-Sheng Chris Lin	National Taiwan University	6	3	6
Nicholas J. Ashill	American University of Sharjah	6	2.41	7
Li-Wei Wu	Tunghai University	5	3.5	4
IpKin Anthony Wong	Institute for Tourism Studies, Macau	5	2.2	8
Taewon Moon	Hongik University	5	1.65	10
Xiucheng Fan	Fudan University	5	1.57	11

Table 3: Most productive Asian institutes

Country	Institution	Normal Count	Fraction Count	Rank by Fractional Count
Hong Kong	Hong Kong Polytechnic University	36	13.42	2
Taiwan	National Cheng Kung University	35	14.22	1
Singapore	National University of Singapore	35	11.25	4
Taiwan	National Taiwan University	30	13.28	3
Taiwan	National Taiwan University of Science and Technology	24	9.38	5
South Korea	Kyung Hee University	22	7.29	8
Taiwan	National Taipei University	20	8.15	6
Taiwan	Yuan Ze University	18	6.06	13
Taiwan	National Kaohsiung First University of Science and Technology	17	6.36	11
Taiwan	National Chung Cheng University	17	5.23	-
Taiwan	National Dong Hwa University	16	6.8	9
China	Soochow University	16	6.15	12
Taiwan	National Chung Hsing University	15	7.75	7
Taiwan	Feng Chia University	15	6.48	10
Taiwan	National Chengchi University	15	5.64	15
Taiwan	National University of Kaohsiung	15	5.98	14

Table 4: Most productive countries in Asia

Country	Normal Count	Fractional Count	JSM	JSMKT	JSR	JSTP	SIJ	SMQ
Taiwan	547	232.47	21	23	10	80	401	12
South Korea	181	67.32	6	34	4	22	96	19
China	116	43.26	20	27	13	14	38	4
India	54	23.7		18	2	7	7	20
Israel	46	21.77	6	2	3	2	13	20
Hong Kong	44	16.62	4	22	6		8	4
Singapore	41	14.24	12	1	7	15	6	
Malaysia	28	9.55		7		6	7	8
UAE	18	11.57	1	7	2	5	2	1
Thailand	18	9.17	2	8	1	5	2	
Turkey	18	6.87	1	1	2	4	6	4
Qatar	9	6.33		3			2	4
Macau	7	1.4		7				
Iran	6	2				2	4	
Vietnam	4	1.32				1	3	
Saudi Arabia	3	0.99	3					
Indonesia	3	0.75						3
Japan	2	1.5				2		
Pakistan	2	1					2	
Srilanka	2	1						2
Lebanon	1	0.25		1				

<p>Natural / Artificial</p> <p>→</p> <p>↓</p> <p>Rational/ Existential</p>			
	Direct observation of object reality	People's perceptions of object reality	Artificial reconstruction of object reality
Axiomatic			Reason/ Logic/ Theorems Mathematical modeling (91)
Logical positivist/ empiricist	Event study (1) Field studies (11) Field experiments (8) (20)	Structured interviews (11+5) Survey (370) Focus Group Discussion (10) (396)	Prototyping Physical modeling Lab experiment (51) Simulation (1) (52)
Interpretive	Action research Case study (16)	Historical Analysis Delphi (1) Intensive interviews (25) Review paper (12) (38)	Conceptual modeling (22) Theoretical modeling (21) (43)
Critical Theory		Introspective reflection	

Figure 1: Research paradigm in service research in Asia

Table 5: Methodology distribution across selected journals

	JSM	JSMKT	JSR	JSTP	SIJ	SMQ
Case Study	2%	1%	3%	1%	3%	0%
Conceptual Modeling	10%	3%	11%	3%	1%	4%
Event Study	0%	0%	0%	0%	0%	0%
FGD	3%	3%	0%	1%	1%	2%
Field Experiment	2%	2%	3%	2%	1%	0%
Field Study	7%	0%	6%	3%	1%	0%
Intensive Interview	2%	10%	8%	2%	2%	4%
Lab Experiment	8%	12%	22%	13%	2%	11%
Mathematical Modeling	10%	1%	3%	9%	20%	0%
Review Paper	2%	2%	3%	2%	1%	2%
Secondary Data	2%	3%	6%	0%	15%	2%
Semi Structured Interview	2%	2%	3%	2%	1%	0%
Simulation	0%	0%	0%	0%	0%	0%
Structured Interview	0%	1%	3%	0%	1%	0%
Survey	46%	60%	31%	57%	48%	73%
Theoretical Modeling	5%	0%	0%	9%	2%	4%
Delphi Method	0%	0%	0%	0%	0%	0%
Total	59	100	36	104	362	55

Table 6: Count of research methods

	JSM	JSMKT	JSR	JSTP	SIJ	SMQ	Total
Single	25	70	13	56	201	44	409
Double	17	12	10	22	76	4	282
Triple	0	2	1	0	3	1	21
Tetris	0	0	0	1	0	0	4
Total count	59	100	36	104	362	55	716

Note: Total count shows the total number of methods used. For example in Journal of Service

*Management total count is $(25*1) + (17*2) + (0*3) + (0*4) = 59$*

Service Operations	HIGH	New Service Development (8) + Service Operations (40) (48)	Service Technology (32) + Service Quality and Performance (143) (175)	Service Characteristics and classification (8) + Service Delivery (43) + Service Recovery (33) (84)
	MODERATE	Service Innovation (38)	Employee attitude and Emotion (74)	Service Integration (8) + Value Co-creation (7) + Customer Satisfaction & Relationship (199) (214)
	LOW		Service Climate (3)	Market positioning (51) + Service Marketing (50) (101)
		LOW	MODERATE	HIGH
Services Marketing				

Figure 2: Sub-topics studies by service researchers in Asia

Table 7: Count of sub-topics in service research in Asia

	Count	Total
Single	398	398
Double	140	280
Triple	18	54
Total	556	732

Table 8: Industries addressed by service researchers in Asia

Industry	Count
Agriculture	0
Automobile repair	2
Banking and Finance	126
Business services	19
Construction	0
Domestic Services	1
Education	14
Entertainment and Recreation	27
E-Retail	29
Generic	60
Government	4
Hotel and Lodging	39
Insurance and Real estate	5
IT communication and Social	49
Laundry, cleaning etc	0
Legal, engineering	0
Manufacturing	5
Medical and Health	39
Personal Services	1
Restaurant	31

Retail trade	83
Travel and Transportation Services	27
Welfare, Religious	3
Wholesale Trade	0
Total	564