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Appendix-I

SURVEY QUESTIONNAIRE
(For CEP Service Providers)

The present survey is in respect of partial fulfilment of Ph.D. research work. This survey aims to research on the resilience of courier, express and parcel (CEP) service providers in times of disruptions. The responses will be kept under strict confidentiality and will be used for academic purposes only. Therefore, genuine, and appropriate responses are anticipated. Thank you for your cooperation in advance. Regards.

What is disruption? When anything out of the ordinary happens to a business, it might throw off its regular operations and processes. There are a number of potential causes of such disruptions, including but not limited to natural catastrophes, technical failures, economic recessions, and supply chain disruptions. Recent COVID-19 pandemic is one of the world-wide disruptions.

1. How do your organization handle the operational activities during disruptive events? Please provide a score on each statements given below on a scale of 1 to 7 [where, 1= lowest score and 7= highest score].

Statements	1	2	3	4	5	6	7
Timely and reliable pickup and delivery (Scheduling/vehicle routing)							
Number of rejected/undelivered items are returned back to the hub							
We have tracking and tracing system to protect packages during transit							
We provide notifications or alerts for delivery status update to the customers							
We ensure accurate delivery							
We have enough flexibility in operating hours as well as changing routes and facilities as per customers requirement							
We can easily handle express or time-sensitive deliveries							
Short processing time and in transit time							
We provide cost-effective services to meet different customers' needs.							

Statements	1	2	3	4	5	6	7
Short response time for queries and to resolve conflicts							
Delivery agents are given daily targets to deliver shipments							
We have adopted technological advancement initiatives to tackle disruptions							
Our organization is using novel delivery solutions or services demonstrates innovation in the field of courier service							
Our organization has changed or adapted the operational processes that demonstrates innovation in the field of courier services							
Our overall advancements made during the pandemic in terms of tracking and visibility of shipments, contactless delivery, and other digital solutions in response to evolving dynamic environment							
We promptly adapt our operational processes to handle supply chain disruptions and shifts in demand patterns during the pandemic							
How successfully, compared to competitors, do your courier services continue to operate and remain dependable to carry out deliveries promptly and securely, and effectively amid disruptive events?							
In compared to rivals, our courier business has bounced back and carry on with business as usual following a disruption							
Our courier services during the disruption are aided by geographical area coverage							
Our courier services during the disruption are aided by distribution centers and mode of transportation to handle sufficient number of deliveries							
We always focus on resources are being efficiently utilized							
We establish new relationships or collaborations with healthcare providers, government organizations, or the other essential service providers to provide uninterrupted services during disruptions							
We efficiently handle shipping-related risks like damage or theft or delay in delivery and risks posed by disruptions							
Our employees are capable of handling disruptions efficiently							

2. Please evaluate the following statements regarding your company's performance relative to its competitors during disruptions. Please answer in a scale of 1 to 7 [where, 1= lowest score and 7= highest score]

Statements	1	2	3	4	5	6	7
We have sales growth							
We have better market reach							
We have better profitability							
We have better customer satisfaction							

3. How do you perceive your organization's performance during periods of disruption? Please answer on a scale of 1 to 7 [where, 1= the lowest score and 7= the highest score]

1	2	3	4	5	6	7

4. What innovative strategies or practices has your organization adopted to adapt to the dynamic environment created by disruptions? Please specify.

5. What are the primary challenges your organization faces in remaining competitive in the market? Additionally, how has the recent pandemic impacted the operational direction of the courier, service, and parcel industry?

6. Other information

a. Name of your organisation_____

b. Age of the organisation (Tick on the answer)

i) 0-3 years ☐

ii) 4-10 years ☐

iii) 11-20 years ☐

iv) More than 20 years ☐

c. Number of employees (Tick on the answer)

i) Less than 50 ☐

ii) Between 50 and 100 ☐

iii) Between 100 and 250 ☐

iv) Above 250 ☐

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SURVEY QUESTIONNAIRE

(For Individual Customers)

The present survey is in respect of partial fulfilment of Ph.D. research work. This survey aims to research on the customer perspectives regarding courier, express and parcel service providers (CEP) service providers in maintaining service quality during disruptive environment (recent COVID-19 pandemic is one of the examples of disruptive event). The responses will be kept under strict confidentiality and will be used for academic purposes only. Therefore, genuine and appropriate responses are anticipated. Thank you for your cooperation in advance. Regards.

The respondent must be a user of both a) India Post and b) other Private couriers (such as DTDC, Blue dart, Ekart etc.); Consider both the cases a) sending and b) receiving of shipments (documents, parcels, online deliveries etc.)

1. For what purpose do you use courier services? (Tick on the answer)

   a) To send documents ☐
   b) To send non-documents (parcels, packages) ☐
   c) Both ☐

2. Name private couriers that you use _____

3. Which of the following delivery features matters the most while selecting a courier service? (Tick on the answer)

   a) Flexibility ☐
   b) Safety ☐
   c) Price ☐
   d) Speed ☐
   e) Appropriate customer service ☐

4. Have you used courier services in last 2 years? (Tick on the answer)

   a) Yes ☐ b) No ☐

5. How frequently do you use the courier services? (Tick on the answer)

   a) Rarely ☐
   b) Daily ☐

c) Weekly ☐

d) Monthly ☐

e) More than two times in a year ☐

6. Which courier service provider do you prefer to send urgent documents/packages? (Tick on the answer)

a) India Post ☐ b) Private couriers ☐ c) Both ☐

7. How do you find the disruption pushed redefined services innovation adopted by your courier service provider? Please answer on a scale of 1 to 7 [where, 1= lowest score and 7= highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Completely follow pandemic protocols both at the counter and at the time of delivery														
Assure the health status of delivery executives														
Assurance of sanitized packages before handling														
Delivery executives drop parcels at doorstep and ask for confirmation from a safe distance														
Facilitates contactless delivery														
OTP based transactions														
Use of mobile applications, GPS tracking														
Adoption of sustainability practices (such as environmental friendly, hybrid vehicles, etc)														
Encourages use of digital/online payment														

8. Please rate the service quality of both India post and private courier service providers based on your recent experience in a scale of 1 to 7 [where, 1= the lowest score and 7= the highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Cope with the changes brought by the disruption														
Adapt to the disruption easily														
Ability to provide quick response to the disruption														
Maintains high situational awareness during disruptions														
Facilitates home pickups if desired by customers														
Arranging services for containment areas														
OTP based transaction														
Mobile applications, GPS tracking														
Digital/online payment														
Easy adequate information														
Short response time														
Customer support system														
Update on shipment status														
Immediate notification on delivered shipment														
Knowledgeable staffs														
Adequate delivery time														
Special care for shipments														
Real-time information														
Undamaged shipment														
Fast delivery process														
Make changes in delivery dates and destination														
Confidentiality and privacy														
Advance information before actual delivery														
Delivery executives' performance														
Convenient working hours														
Convenient location														
Uniform services														
Customer's feedback														
Information sharing														
Exchange ideas with customers														

Statements	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Inform about delays														
Resolve problems promptly and appropriately														
Compensation for damages/loss														
Demonstrates creativity														
Searches for novel approaches														
Quick to introduce new services														
More service availability than competitors														
Reasonable price than competitors														
Better service quality than competitors														
More adaptive to disruptions as compared to competitors														
Do not provide immediate notification on delivered shipment*														

9. Please rate your satisfaction level, future intention to use or not to use the services CEP service providers on a scale of 1 to 7 [where, 1= the lowest score and 7= the highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Best service quality despite disruptions														
Safe and secure services despite disruptions														
Offer promised service despite disruptions														
Meet my expectations despite disruptions														
This courier has everything I need to receive/send parcel during disruptions														
I will continue to use the services in future														
I will recommendation to others														
Whenever I need to send any shipment, I prefer this courier service														

Statements	1	2	3	4	5	6	7	1	2	3	4	5	6	7
I will use other service provider if that offer more attractive prices														
I will pay higher price to competitors because of the service quality														
I will switch to other service providers if encountered more problems														
I will certainly voice my concerns, if encounters any issue														

10. Are you willing to pay more than the standard price for improved delivery services?
    [where, 1= lowest score and 7= highest score]

1	2	3	4	5	6	7

11. How do you rate the disruption preparedness of the CEP services providers to provide a smooth and reliable experience in the face of unforeseen occurrences or challenges?
    [where, 1= lowest score and 7= highest score]

1	2	3	4	5	6	7

12. Other information: (Tick on the answer)

    i) Gender: a) Male ☐ b) Female ☐

    ii) Education:

    a) High School ☐
    b) Higher secondary (12^{th}) ☐
    c) Graduate ☐
    d) Post Graduate ☐
    e) Others (specify) …….

    iii) Profession: (Tick on the answer)

    a) Self-employed ☐
    b) Public sector ☐
    c) Private sector ☐

d) Government employee ☐

e) Housemaker ☐

f) Students ☐

g) Others (specify) …….

iv) Age: (Tick on the answer)

a) 18-24 yrs ☐

b) 25-34 yrs ☐

c) 35-44 yrs ☐

d) 45-54 yrs ☐

e) 55-65 yrs ☐

f) Above 65 yrs ☐

v) Monthly income: (Tick on the answer)

a) Up to Rs. 20,000 ☐

b) Rs. 21,000 to 40,000 ☐

c) Rs. 41,000 to 60,000 ☐

d) Rs 61,000 to 1,00,000 ☐

e) Above Rs. 1,00,000 ☐

vi) Area Pincode of your residence _____

*Reverse coded statement to check respondents' engagement in the survey

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SURVEY QUESTIONNAIRE

(For Organisational Customers)

The present survey is in respect of partial fulfilment of Ph.D. research work. This survey aims to research on the customer perspectives regarding courier, express and parcel service providers (CEP) service providers in maintaining service quality during disruptive environment (recent COVID-19 pandemic is one of the examples of disruptive event). The responses will be kept under strict confidentiality and will be used for academic purposes only. Therefore, genuine and appropriate responses are anticipated. Thank you for your cooperation in advance. Regards.

The respondent must be a user of both a) India Post and b) other Private couriers (such as DTDC, Blue dart, Trackon etc.); Consider both the cases a) sending and b) receiving of shipments (such as documents, parcels, e-com deliveries etc.)

1. For what purpose do you use courier services? (Tick on the answer)
   a) To send documents ☐
   b) To send non-documents (parcels, packages) ☐
   c) Both ☐
2. Name private couriers that you use _____
3. Which of the following delivery features matters the most while selecting a courier service? (Tick on the answer)
   a) Flexibility ☐
   b) Safety ☐
   c) Price ☐
   d) Speed ☐
   e) Appropriate customer service ☐
4. Have you used courier services in last 2 years? (Tick on the answer)
   a. Yes ☐ b) No ☐
5. How frequently do you use the courier services? (Tick on the answer)
   a) Rarely ☐
   b) Daily ☐
   c) Weekly ☐

d) Monthly ☐

e) More than two times in a year ☐

6. Which courier service provider do you prefer to send urgent documents/packages? (Tick on the answer)

   a. India Post ☐ b) Private couriers ☐ c) Both ☐

7. How do you find the disruption pushed redefined services innovation adopted by your courier service provider? Tick N/A if not applicable otherwise rate your answer in a scale of 1 to 7 [where, 1= lowest score and 7= highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Completely follow pandemic protocols both at the counter and at the time of delivery														
Assure the health status of delivery executives														
Assurance of sanitized packages before handling														
Delivery executives drop parcels at doorstep and ask for confirmation from a safe distance														
Facilitates contactless delivery														
OTP based transactions														
Use of mobile applications, GPS tracking														
Adoption of sustainability practices (such as environmental friendly, hybrid vehicles, etc)														
Encourages use of digital/online payment														

8. Please rate the service quality of receiving/sending documents or packages, for both India post and private courier service providers during pandemic in a scale of 1 to 7 [where, 1= lowest score and 7= highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Accommodates changing and urgent requirement during disruptions														
Clear, accurate online real-time tracking information														
Safety assurance														
Convenient operating working hours														
Provides automated reports for failed deliveries														
Efficiently handles shipments during Peak seasons														
Ensures timely and effective handling of trade documents														
Application of modern updated information technology														
Delivery confirmation through using modern technology														
IT application and easy information sharing														
Makes arrangement for most of our shipping requisitions														
Multiple mode of shipments available based on requirement														
Ease of return from our customers														
Widespread distribution coverage														
Upgrading their express delivery time (such as next-day or even same day)														
Undeliverable shipments handling														
Assurance of sanitization and adherence to pandemic protocols														
Contactless delivery for the customers/receiver														
Availability of alternative delivery options														
Safely handling and proper communication of shipments trapped mid-shipments during disruptions														

Statements	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Delivery executives do not perform their jobs well*														
Provide information on health status of delivery executives to share with customers														
Easy to booking, schedule pickup by phone or web application														
Provide appropriate and sufficient capacity for desired shipments														
Provide an option for preferred time slot service for delivery or pickup (such as early morning within 10:30 am or as requested)														
The entire logistics process is well coordinated and functioned complying														
Accurate information on current shipment location and the estimated delivery time														
Web based order handling, modern packaging solutions														
Shipments send by us delivered at promised time														
Provide information that the package has arrived at the nearest hub														
Communicates through encrypted system that keeps our customer’s contact details secure														
Delivery executives perform their jobs well														
Ask for customer's feedback regarding service experience														
Informs us when the shipment gets delivered to the end customer														
Keeps us informing about changes, special discounts, offers, new products and services														
Timely processing is done while dealing with the grievances														

Statements	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Shipping problems are resolved promptly through representative over the phone /internet communications (such as email)														
Take the responsibility in case of damage or loss														
Shipments can be sent to any location as compared to competitors														
Reasonable prices and rates are charged for service as compared to competitors														
Service quality is better as compared to competitors														
More adaptive to disruptions as compared to competitors														

9. Please rate your satisfaction level, future intention to use or not to use the services CEP service providers on a scale of 1 to 7 [where, 1= lowest score and 7= highest score]

Statements	India Post							Private courier services						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7
We are delighted to use the services of our courier service providers during disruptions														
We are satisfied with the overall service quality of the courier service providers during disruptions														
We are satisfied with the management and employees of the courier service providers during disruptions														
We are satisfied with the process/ operation of the courier service providers during disruptions														
We will shift of business to competitor who offer more attractive prices														

Statements	1	2	3	4	5	6	7	1	2	3	4	5	6	7
We will pay higher price to competitors if I get quality services														
We are switch to a competitor if encountered more problems														
We will complain, in case of service failure														
We will outsource more business and will continue the relationship with our present courier service providers as long as possible														
We will recommend our courier service providers to other organization														
Whenever need to send any shipment, we prefer this courier service														

10. Are you willing to pay more than the standard price for improved delivery services?
    [where, 1= lowest score and 7= highest score]

1	2	3	4	5	6	7

11. How do you rate the disruption preparedness of the CEP services providers to provide a smooth and reliable experience in the face of unforeseen occurrences or challenges?
    [where, 1= lowest score and 7= highest score]

1	2	3	4	5	6	7

12. Other information:

(i) Type of organisation (Tick on the answer)

a) Manufacturing ☐
b) Pharmaceuticals ☐
c) Banking/IT/Accounting/other firms ☐
d) Educational institutes/printing/publishers ☐
e) E commerce/Retails ☐

f) Others_____

(ii) Age of the organisation (Tick on the answer)

a) 0-3 years ☐

b) 4-10 years ☐

c) 11-20 years ☐

d) More than 20 years ☐

(iii) Area pincode _____

(iv) Number of employees (Tick on the answer)

a) Less than 50 ☐

b) Between 50 and 100 ☐

c) Between 100 and 250 ☐

d) Above 250 ☐

(v) Monthly turnover (Tick on the answer)

a) Below Rs. 2,50,000 ☐

b) Between Rs. 2,50,000 and 5,00,000 ☐

c) Between Rs. 5,00,000 and 10,00,000 ☐

d) Above Rs. 10,00,000 ☐

*Reverse coded statement to check respondents' engagement in the survey

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Appendix-II

Cross loadings

Competitive Preparedness parameters

CEP service providers

	DP	*INV*	*LE*	*OE*	*PERF*	*SA*
DP1	0.912	0.593	0.614	0.670	0.726	0.557
DP2	0.916	0.628	0.622	0.586	0.719	0.591
DP3	0.928	0.602	0.683	0.641	0.786	0.660
DP4	0.867	0.610	0.693	0.479	0.695	0.481
DP5	0.892	0.588	0.633	0.578	0.717	0.613
DP6	0.933	0.625	0.619	0.593	0.705	0.568
INV1	0.598	0.914	0.613	0.597	0.688	0.454
INV2	0.520	0.862	0.551	0.375	0.555	0.232
INV3	0.669	0.916	0.633	0.488	0.727	0.548
INV4	0.601	0.897	0.673	0.589	0.745	0.478
LE1	0.638	0.631	0.943	0.640	0.769	0.517
LE2	0.640	0.671	0.920	0.636	0.746	0.483
LE3	0.682	0.680	0.924	0.549	0.745	0.573
LE4	0.640	0.581	0.893	0.688	0.663	0.486
LE5	0.675	0.621	0.930	0.567	0.716	0.503
OE1	0.516	0.515	0.501	0.871	0.676	0.689
OE2	0.576	0.547	0.582	0.912	0.659	0.593
OE3	0.599	0.512	0.652	0.843	0.706	0.614
OE4	0.533	0.501	0.568	0.842	0.699	0.527
OE5	0.614	0.429	0.580	0.831	0.666	0.569
OE6	0.514	0.469	0.539	0.844	0.651	0.629
PERF1	0.644	0.683	0.723	0.790	0.923	0.653
PERF2	0.759	0.624	0.644	0.660	0.888	0.657
PERF3	0.762	0.753	0.818	0.734	0.927	0.703
PERF4	0.750	0.718	0.691	0.696	0.910	0.695
SA1	0.573	0.410	0.512	0.669	0.663	0.949
SA2	0.615	0.532	0.579	0.695	0.767	0.959
SA3	0.634	0.447	0.491	0.643	0.683	0.947

Courier service quality (CSQ) model parameters

Individual postal customers

Items	*CDLTY*	*CI*	*CLTY*	*COM*	*CSAT*	*DAP*	*DM*	*ICT*	*INV*	*LGE*	*OPE*	*SI*	*WLP*
CDLTY1	0.907	-0.104	-0.201	-0.055	-0.201	-0.147	-0.052	-0.182	-0.085	-0.167	-0.150	-0.052	-0.212
CDLTY2	0.895	-0.117	-0.232	-0.053	-0.194	-0.097	-0.089	-0.131	-0.042	-0.129	-0.159	-0.044	-0.176
CDLTY3	0.885	-0.095	-0.133	-0.004	-0.165	-0.061	-0.050	-0.123	-0.075	-0.104	-0.121	-0.024	-0.117
CDLTY4	0.875	-0.139	-0.162	-0.104	-0.164	-0.096	-0.102	-0.116	-0.055	-0.137	-0.159	-0.054	-0.137
CI1	-0.134	0.865	0.347	0.337	0.612	0.503	0.459	0.436	0.190	0.441	0.482	0.466	0.462
CI2	-0.112	0.866	0.314	0.279	0.528	0.515	0.406	0.521	0.173	0.459	0.511	0.411	0.439
CI3	-0.067	0.820	0.263	0.302	0.457	0.422	0.399	0.378	0.267	0.355	0.459	0.368	0.375
CLTY1	-0.209	0.380	0.894	0.337	0.592	0.470	0.436	0.389	0.172	0.402	0.436	0.436	0.525
CLTY2	-0.213	0.307	0.871	0.342	0.548	0.409	0.362	0.342	0.177	0.333	0.402	0.426	0.511
CLTY3	-0.098	0.238	0.789	0.299	0.435	0.297	0.270	0.264	0.137	0.246	0.285	0.311	0.448
COM1	-0.018	0.192	0.296	0.813	0.366	0.300	0.238	0.282	0.167	0.289	0.281	0.348	0.277
COM2	-0.060	0.369	0.360	0.863	0.529	0.375	0.326	0.323	0.109	0.437	0.421	0.390	0.405
COM3	-0.069	0.347	0.354	0.811	0.442	0.340	0.345	0.273	0.179	0.340	0.373	0.365	0.372
COM4	-0.028	0.170	0.128	0.672	0.251	0.222	0.167	0.229	0.107	0.182	0.191	0.261	0.239
CSAT1	-0.205	0.537	0.525	0.427	0.870	0.576	0.516	0.526	0.250	0.494	0.547	0.478	0.647
CSAT2	-0.145	0.523	0.509	0.414	0.861	0.602	0.498	0.476	0.278	0.533	0.558	0.499	0.615
CSAT3	-0.181	0.579	0.564	0.483	0.886	0.613	0.548	0.561	0.322	0.535	0.576	0.533	0.671
CSAT4	-0.155	0.550	0.559	0.509	0.867	0.635	0.501	0.537	0.312	0.570	0.608	0.502	0.663
CSAT5	-0.212	0.582	0.557	0.463	0.891	0.667	0.544	0.559	0.287	0.546	0.621	0.573	0.643
DAP1	-0.095	0.540	0.421	0.384	0.641	0.871	0.467	0.536	0.215	0.526	0.531	0.512	0.491
DAP2	-0.084	0.462	0.400	0.320	0.610	0.852	0.461	0.493	0.189	0.562	0.489	0.429	0.433
DAP3	-0.132	0.473	0.393	0.347	0.593	0.852	0.459	0.464	0.134	0.540	0.533	0.450	0.419
DAP4	-0.124	0.476	0.406	0.347	0.634	0.871	0.490	0.533	0.207	0.535	0.554	0.470	0.467
DAP5	-0.085	0.476	0.417	0.338	0.608	0.847	0.425	0.505	0.177	0.541	0.514	0.483	0.460
DAP6	-0.069	0.474	0.338	0.315	0.518	0.817	0.381	0.515	0.132	0.465	0.456	0.415	0.368
DM1	-0.072	0.440	0.385	0.353	0.552	0.467	0.892	0.415	0.197	0.420	0.465	0.448	0.423
DM2	-0.061	0.453	0.400	0.298	0.508	0.486	0.894	0.395	0.156	0.404	0.457	0.397	0.417
DM3	-0.081	0.431	0.340	0.293	0.524	0.447	0.872	0.422	0.146	0.370	0.452	0.429	0.410
ICT1	-0.085	0.441	0.265	0.308	0.445	0.406	0.363	0.811	0.220	0.335	0.410	0.325	0.371
ICT2	-0.193	0.481	0.331	0.278	0.521	0.513	0.392	0.872	0.224	0.345	0.423	0.325	0.423
ICT3	-0.120	0.424	0.392	0.316	0.573	0.580	0.422	0.867	0.213	0.454	0.458	0.399	0.473
INV1	-0.068	0.256	0.179	0.176	0.311	0.212	0.212	0.244	0.893	0.185	0.215	0.232	0.194
INV2	-0.072	0.205	0.168	0.174	0.282	0.187	0.154	0.199	0.889	0.134	0.171	0.208	0.175
INV3	-0.053	0.174	0.157	0.113	0.280	0.147	0.127	0.233	0.858	0.130	0.169	0.149	0.187
LGE1	-0.111	0.422	0.374	0.370	0.572	0.565	0.385	0.434	0.157	0.884	0.507	0.399	0.444
LGE2	-0.111	0.407	0.341	0.367	0.516	0.538	0.360	0.393	0.179	0.832	0.462	0.425	0.406
LGE3	-0.150	0.437	0.322	0.317	0.477	0.502	0.398	0.391	0.113	0.818	0.543	0.370	0.389

Items	*CDLTY*	*CI*	*CLTY*	*COM*	*CSAT*	*DAP*	*DM*	*ICT*	*INV*	*LGE*	*OPE*	*SI*	*WLP*
LGE4	-0.077	0.425	0.304	0.352	0.481	0.454	0.361	0.305	0.156	0.774	0.509	0.409	0.370
LGE5	-0.157	0.398	0.322	0.358	0.532	0.533	0.388	0.386	0.129	0.864	0.482	0.369	0.418
LGE6	-0.160	0.388	0.271	0.313	0.468	0.503	0.353	0.323	0.117	0.817	0.451	0.338	0.363
OPE1	-0.119	0.523	0.348	0.350	0.578	0.476	0.451	0.445	0.185	0.459	0.874	0.443	0.443
OPE2	-0.113	0.505	0.350	0.369	0.551	0.533	0.453	0.408	0.164	0.532	0.833	0.479	0.416
OPE3	-0.153	0.475	0.412	0.368	0.563	0.535	0.428	0.407	0.185	0.526	0.864	0.444	0.419
OPE4	-0.155	0.462	0.380	0.338	0.589	0.529	0.464	0.457	0.201	0.492	0.825	0.433	0.471
OPE5	-0.132	0.463	0.434	0.388	0.606	0.518	0.447	0.442	0.207	0.509	0.859	0.389	0.427
OPE6	-0.172	0.474	0.329	0.326	0.486	0.475	0.382	0.420	0.123	0.489	0.833	0.355	0.362
SI1	0.024	0.353	0.329	0.308	0.392	0.358	0.344	0.232	0.184	0.306	0.304	0.793	0.270
SI2	0.064	0.160	0.242	0.309	0.289	0.281	0.249	0.165	0.158	0.230	0.231	0.737	0.194
SI3	-0.071	0.403	0.407	0.371	0.522	0.498	0.438	0.413	0.207	0.421	0.457	0.820	0.433
SI4	-0.096	0.499	0.418	0.427	0.587	0.497	0.429	0.417	0.193	0.460	0.513	0.852	0.494
SI5	-0.058	0.449	0.431	0.351	0.510	0.465	0.431	0.373	0.153	0.403	0.425	0.873	0.395
SI6	-0.042	0.455	0.399	0.370	0.520	0.494	0.412	0.345	0.209	0.389	0.438	0.846	0.379
WPAY	-0.185	0.504	0.582	0.422	0.741	0.519	0.471	0.501	0.211	0.480	0.501	0.459	1.000

Individuate private CEP customers

	CDLTY	***CI***	***CLTY***	***COM***	***CSAT***	***DAP***	***DM***	***DP***	***INV***	***LGE***	***OPE***	***SI***	***TA***	***WLP***
CDLTY1	0.896	-0.166	-0.243	-0.175	-0.468	-0.304	-0.216	-0.255	-0.191	-0.319	-0.259	-0.313	-0.241	-0.379
CDLTY2	0.883	-0.182	-0.228	-0.158	-0.439	-0.254	-0.209	-0.248	-0.105	-0.265	-0.247	-0.260	-0.241	-0.348
CDLTY3	0.892	-0.194	-0.162	-0.161	-0.399	-0.227	-0.167	-0.231	-0.180	-0.275	-0.233	-0.267	-0.204	-0.306
CDLTY4	0.889	-0.174	-0.188	-0.159	-0.419	-0.245	-0.183	-0.253	-0.133	-0.278	-0.238	-0.284	-0.249	-0.336
CI1	-0.202	0.855	0.340	0.374	0.434	0.381	0.202	0.389	0.105	0.382	0.373	0.433	0.337	0.414
CI2	-0.172	0.859	0.341	0.318	0.387	0.378	0.188	0.429	0.105	0.347	0.362	0.371	0.307	0.341
CI3	-0.112	0.777	0.224	0.257	0.323	0.304	0.095	0.274	0.115	0.231	0.282	0.332	0.209	0.299
CLTY2	-0.215	0.311	0.907	0.356	0.444	0.411	0.213	0.398	0.166	0.391	0.427	0.345	0.247	0.388
CLTY3	-0.112	0.224	0.677	0.241	0.307	0.328	0.099	0.259	0.153	0.349	0.383	0.287	0.240	0.253
CLYT1	-0.240	0.378	0.903	0.383	0.480	0.460	0.267	0.439	0.168	0.406	0.420	0.371	0.313	0.382
COM1	-0.097	0.288	0.334	0.789	0.283	0.250	0.102	0.268	0.125	0.225	0.299	0.266	0.159	0.249
COM2	-0.190	0.398	0.374	0.862	0.420	0.417	0.267	0.430	0.136	0.349	0.393	0.408	0.340	0.381
COM3	-0.183	0.310	0.335	0.851	0.421	0.323	0.197	0.360	0.161	0.316	0.354	0.327	0.268	0.337
COM4	-0.049	0.132	0.106	0.595	0.169	0.125	0.042	0.137	0.076	0.091	0.157	0.143	0.115	0.139
CSAT1	-0.406	0.403	0.401	0.392	0.882	0.503	0.287	0.535	0.290	0.483	0.520	0.463	0.433	0.700
CSAT2	-0.358	0.418	0.384	0.359	0.843	0.483	0.251	0.495	0.206	0.391	0.478	0.441	0.439	0.697
CSAT3	-0.393	0.357	0.468	0.341	0.835	0.470	0.275	0.482	0.273	0.466	0.483	0.451	0.340	0.665
CSAT4	-0.425	0.389	0.400	0.375	0.859	0.467	0.247	0.522	0.265	0.479	0.522	0.439	0.401	0.656
CSAT5	-0.509	0.437	0.495	0.436	0.899	0.536	0.330	0.543	0.232	0.513	0.551	0.481	0.475	0.693
DAP1	-0.239	0.403	0.443	0.346	0.546	0.862	0.275	0.522	0.257	0.482	0.511	0.427	0.468	0.428
DAP2	-0.284	0.314	0.396	0.324	0.458	0.822	0.237	0.463	0.124	0.434	0.467	0.400	0.484	0.366
DAP3	-0.257	0.360	0.399	0.332	0.482	0.837	0.230	0.480	0.220	0.425	0.430	0.349	0.430	0.381
DAP4	-0.174	0.352	0.376	0.295	0.426	0.815	0.250	0.520	0.191	0.456	0.521	0.420	0.402	0.324
DAP5	-0.236	0.339	0.410	0.328	0.455	0.844	0.244	0.480	0.217	0.456	0.497	0.417	0.432	0.357
DAP6	-0.251	0.364	0.359	0.287	0.447	0.774	0.277	0.429	0.192	0.391	0.474	0.355	0.443	0.348
DM1	-0.195	0.195	0.230	0.218	0.295	0.296	0.922	0.346	0.077	0.213	0.231	0.190	0.224	0.236
DM2	-0.190	0.151	0.204	0.161	0.261	0.239	0.939	0.318	0.073	0.204	0.216	0.152	0.215	0.219
DM3	-0.220	0.207	0.232	0.228	0.333	0.305	0.914	0.345	0.119	0.245	0.264	0.237	0.238	0.274

	CDLTY	CI	CLTY	COM	CSAT	DAP	DM	DP	INV	LGE	OPE	SI	TA	WLP
DP1	-0.222	0.437	0.379	0.374	0.523	0.500	0.361	0.885	0.234	0.528	0.582	0.477	0.411	0.420
DP2	-0.259	0.386	0.418	0.358	0.539	0.547	0.342	0.874	0.261	0.552	0.640	0.417	0.418	0.394
DP3	-0.230	0.320	0.353	0.298	0.474	0.450	0.272	0.817	0.240	0.476	0.566	0.428	0.367	0.401
DP4	-0.238	0.379	0.374	0.383	0.505	0.495	0.269	0.845	0.286	0.500	0.534	0.425	0.430	0.392
INV1	-0.149	0.109	0.164	0.142	0.287	0.250	0.103	0.288	0.901	0.289	0.266	0.188	0.138	0.219
INV2	-0.170	0.134	0.167	0.149	0.276	0.207	0.080	0.279	0.901	0.198	0.245	0.193	0.118	0.211
INV3	-0.137	0.099	0.187	0.153	0.211	0.191	0.078	0.224	0.864	0.200	0.207	0.168	0.118	0.151
LGE1	-0.284	0.359	0.398	0.320	0.465	0.437	0.158	0.473	0.229	0.866	0.555	0.389	0.234	0.353
LGE2	-0.305	0.370	0.419	0.320	0.528	0.490	0.275	0.605	0.220	0.875	0.621	0.449	0.335	0.412
LGE3	-0.278	0.321	0.391	0.290	0.474	0.492	0.230	0.562	0.228	0.884	0.621	0.409	0.271	0.368
LGE4	-0.235	0.311	0.367	0.256	0.393	0.423	0.157	0.425	0.219	0.835	0.538	0.355	0.238	0.277
OPE1	-0.247	0.401	0.480	0.358	0.543	0.528	0.191	0.631	0.262	0.600	0.882	0.450	0.417	0.412
OPE2	-0.202	0.305	0.330	0.281	0.432	0.481	0.223	0.512	0.203	0.542	0.800	0.421	0.368	0.290
OPE3	-0.297	0.359	0.463	0.387	0.548	0.542	0.257	0.644	0.231	0.643	0.883	0.522	0.409	0.415
OPE4	-0.180	0.323	0.380	0.331	0.445	0.415	0.130	0.461	0.191	0.512	0.792	0.474	0.363	0.368
OPE5	-0.227	0.352	0.396	0.364	0.527	0.500	0.287	0.607	0.253	0.560	0.878	0.492	0.379	0.437
SI1	-0.255	0.379	0.287	0.341	0.431	0.412	0.129	0.413	0.161	0.385	0.454	0.839	0.353	0.361
SI2	-0.190	0.287	0.332	0.251	0.379	0.339	0.113	0.328	0.117	0.324	0.441	0.763	0.308	0.360
SI3	-0.263	0.403	0.351	0.322	0.457	0.384	0.273	0.414	0.203	0.417	0.475	0.801	0.328	0.383
SI4	-0.328	0.430	0.365	0.357	0.485	0.400	0.171	0.495	0.232	0.406	0.459	0.839	0.344	0.415
SI5	-0.206	0.311	0.250	0.280	0.320	0.369	0.142	0.360	0.075	0.305	0.382	0.743	0.308	0.285
TA1	-0.193	0.243	0.265	0.234	0.431	0.487	0.187	0.424	0.131	0.277	0.421	0.327	0.870	0.337
TA2	-0.253	0.358	0.274	0.288	0.434	0.479	0.207	0.407	0.113	0.307	0.397	0.374	0.877	0.377
TA3	-0.231	0.297	0.283	0.263	0.381	0.416	0.238	0.394	0.118	0.223	0.359	0.359	0.828	0.352
WPAY	-0.386	0.428	0.414	0.380	0.789	0.447	0.265	0.469	0.220	0.411	0.457	0.457	0.414	1.000

Organizational postal customers

	CDLTY	***CI***	***CLTY***	***CSAT***	***DAP***	***DM***	***FLEX***	***INV***	***LGE***	***OPE***	***RRL***	***TA***	***WLP***
CDLTY1	0.946	-0.390	-0.400	-0.599	-0.402	-0.531	-0.512	-0.414	-0.498	-0.487	-0.519	-0.344	-0.543
CDLTY2	0.921	-0.367	-0.420	-0.598	-0.401	-0.480	-0.556	-0.370	-0.511	-0.478	-0.507	-0.348	-0.549
CDLTY3	0.923	-0.413	-0.397	-0.613	-0.404	-0.529	-0.535	-0.390	-0.480	-0.481	-0.493	-0.367	-0.532
CDLTY4	0.931	-0.404	-0.416	-0.592	-0.404	-0.501	-0.516	-0.382	-0.507	-0.494	-0.482	-0.319	-0.512
CI1	-0.377	0.861	0.237	0.467	0.359	0.459	0.429	0.316	0.399	0.371	0.353	0.156	0.391
CI2	-0.379	0.873	0.246	0.464	0.358	0.355	0.447	0.314	0.432	0.366	0.319	0.107	0.365
CI3	-0.341	0.865	0.257	0.417	0.330	0.368	0.377	0.304	0.344	0.362	0.264	0.119	0.356
CLTY1	-0.365	0.207	0.816	0.394	0.209	0.267	0.306	0.242	0.372	0.362	0.290	0.224	0.368
CLTY2	-0.358	0.312	0.883	0.475	0.317	0.382	0.334	0.245	0.418	0.409	0.357	0.271	0.456
CLTY3	-0.383	0.184	0.811	0.413	0.286	0.333	0.325	0.270	0.318	0.368	0.334	0.251	0.363
CSAT1	-0.596	0.469	0.491	0.937	0.533	0.638	0.577	0.488	0.609	0.568	0.548	0.467	0.737
CSAT2	-0.570	0.493	0.444	0.917	0.505	0.608	0.604	0.461	0.568	0.532	0.536	0.464	0.732
CSAT3	-0.600	0.477	0.486	0.908	0.502	0.601	0.578	0.429	0.569	0.569	0.511	0.414	0.713
CSAT4	-0.617	0.482	0.471	0.932	0.531	0.619	0.588	0.448	0.596	0.581	0.546	0.449	0.742
DAP1	-0.419	0.361	0.285	0.534	0.880	0.507	0.396	0.205	0.451	0.450	0.413	0.312	0.414
DAP2	-0.333	0.356	0.310	0.475	0.822	0.422	0.370	0.279	0.407	0.373	0.352	0.309	0.410
DAP3	-0.314	0.301	0.254	0.462	0.789	0.352	0.247	0.208	0.396	0.342	0.295	0.277	0.354
DAP4	-0.355	0.321	0.246	0.427	0.828	0.368	0.311	0.255	0.416	0.348	0.308	0.248	0.349
DAP5	-0.331	0.302	0.242	0.405	0.800	0.374	0.313	0.178	0.386	0.327	0.306	0.186	0.307
DAP6	-0.388	0.358	0.277	0.471	0.847	0.425	0.360	0.227	0.460	0.409	0.357	0.249	0.395
DM1	-0.507	0.401	0.411	0.648	0.479	0.902	0.489	0.407	0.536	0.506	0.516	0.386	0.507
DM2	-0.456	0.394	0.268	0.540	0.399	0.883	0.409	0.340	0.394	0.431	0.402	0.281	0.415
DM3	-0.491	0.415	0.356	0.578	0.435	0.873	0.481	0.338	0.461	0.488	0.473	0.270	0.450
FLEX1	-0.564	0.471	0.400	0.643	0.417	0.511	0.926	0.404	0.499	0.498	0.483	0.305	0.527
FLEX2	-0.494	0.448	0.343	0.548	0.315	0.481	0.885	0.380	0.466	0.463	0.433	0.274	0.484
FLEX3	-0.469	0.425	0.316	0.538	0.373	0.426	0.884	0.342	0.450	0.415	0.457	0.290	0.449
FLEX4	-0.509	0.388	0.312	0.540	0.342	0.449	0.894	0.354	0.450	0.466	0.430	0.338	0.476
INV1	-0.409	0.363	0.273	0.463	0.277	0.375	0.396	0.896	0.386	0.329	0.329	0.199	0.383

	CDLTY	CI	CLTY	CSAT	DAP	DM	FLEX	INV	LGE	OPE	RRL	TA	WLP
INV2	-0.373	0.324	0.253	0.431	0.248	0.384	0.352	0.892	0.329	0.290	0.339	0.225	0.379
INV3	-0.332	0.270	0.277	0.425	0.198	0.337	0.355	0.885	0.316	0.295	0.283	0.197	0.379
LGE1	-0.521	0.431	0.446	0.617	0.460	0.510	0.480	0.367	0.919	0.485	0.478	0.401	0.522
LGE2	-0.419	0.393	0.397	0.538	0.450	0.461	0.439	0.296	0.869	0.461	0.421	0.352	0.463
LGE3	-0.454	0.370	0.376	0.536	0.455	0.439	0.467	0.369	0.869	0.451	0.456	0.308	0.450
LGE4	-0.466	0.419	0.402	0.552	0.431	0.490	0.437	0.337	0.874	0.476	0.393	0.329	0.477
LGE5	-0.462	0.379	0.317	0.542	0.434	0.420	0.449	0.319	0.860	0.414	0.361	0.324	0.490
LGE6	-0.505	0.404	0.399	0.563	0.452	0.467	0.478	0.356	0.897	0.433	0.437	0.364	0.463
OPE1	-0.464	0.426	0.399	0.545	0.384	0.492	0.506	0.306	0.476	0.877	0.469	0.351	0.459
OPE2	-0.401	0.325	0.347	0.508	0.371	0.442	0.412	0.289	0.386	0.847	0.449	0.298	0.396
OPE3	-0.459	0.359	0.377	0.525	0.441	0.463	0.381	0.295	0.443	0.837	0.435	0.307	0.438
OPE4	-0.448	0.339	0.395	0.533	0.337	0.489	0.451	0.311	0.450	0.853	0.439	0.315	0.479
OPE5	-0.446	0.373	0.376	0.467	0.394	0.431	0.416	0.286	0.445	0.854	0.469	0.362	0.382
OPE6	-0.448	0.351	0.391	0.527	0.410	0.456	0.441	0.306	0.431	0.855	0.479	0.330	0.437
OPE7	-0.450	0.355	0.426	0.535	0.389	0.446	0.465	0.256	0.445	0.858	0.460	0.382	0.459
RRL1	-0.473	0.346	0.392	0.577	0.376	0.540	0.489	0.331	0.463	0.519	0.917	0.350	0.418
RRL2	-0.487	0.295	0.343	0.464	0.320	0.429	0.385	0.278	0.414	0.488	0.850	0.266	0.367
RRL3	-0.438	0.324	0.317	0.479	0.366	0.401	0.451	0.315	0.394	0.432	0.863	0.272	0.347
RRL4	-0.501	0.287	0.311	0.500	0.368	0.474	0.455	0.317	0.435	0.460	0.886	0.287	0.420
RRL5	-0.472	0.339	0.358	0.528	0.384	0.468	0.433	0.330	0.417	0.454	0.888	0.317	0.411
TA1	-0.372	0.138	0.314	0.449	0.265	0.333	0.306	0.252	0.363	0.393	0.328	0.925	0.409
TA2	-0.341	0.141	0.260	0.431	0.355	0.328	0.308	0.196	0.365	0.368	0.302	0.914	0.380
TA3	-0.293	0.121	0.233	0.445	0.256	0.309	0.302	0.179	0.347	0.305	0.295	0.888	0.385
WPAY	-0.574	0.428	0.476	0.791	0.451	0.519	0.541	0.427	0.542	0.511	0.446	0.431	1.000

Organizational private CEP customers

	CDLTY	***CI***	***CLTY***	***COM***	***CSAT***	***DAP***	***DM***	***FLEX***	***INV***	***LGE***	***OPE***	***RRL***	***TA***	***WLP***
CDLTY1	0.955	-0.450	-0.588	-0.245	-0.762	-0.440	-0.276	-0.448	-0.355	-0.525	-0.487	-0.336	-0.354	-0.516
CDLTY2	0.929	-0.420	-0.568	-0.248	-0.724	-0.441	-0.279	-0.451	-0.343	-0.506	-0.470	-0.328	-0.365	-0.520
CDLTY3	0.936	-0.420	-0.603	-0.246	-0.745	-0.464	-0.353	-0.471	-0.377	-0.503	-0.471	-0.334	-0.360	-0.522
CDLTY4	0.938	-0.438	-0.562	-0.247	-0.737	-0.435	-0.315	-0.438	-0.341	-0.512	-0.462	-0.333	-0.341	-0.502
CI1	-0.440	0.888	0.431	0.201	0.581	0.292	0.346	0.494	0.286	0.583	0.469	0.269	0.339	0.380
CI2	-0.403	0.889	0.399	0.158	0.511	0.200	0.339	0.490	0.311	0.539	0.435	0.212	0.278	0.298
CI3	-0.356	0.844	0.388	0.169	0.462	0.238	0.402	0.353	0.265	0.435	0.339	0.166	0.320	0.300
CLTY1	-0.541	0.456	0.891	0.157	0.654	0.393	0.375	0.390	0.395	0.459	0.361	0.330	0.389	0.453
CLTY2	-0.556	0.394	0.862	0.231	0.639	0.440	0.309	0.380	0.345	0.438	0.366	0.279	0.373	0.426
CLTY3	-0.495	0.346	0.825	0.184	0.585	0.377	0.301	0.349	0.341	0.349	0.316	0.158	0.343	0.430
COM1	-0.242	0.208	0.178	0.832	0.279	0.188	0.165	0.240	0.081	0.212	0.202	0.067	0.187	0.086
COM2	-0.223	0.159	0.220	0.846	0.275	0.163	0.172	0.176	0.093	0.158	0.190	0.078	0.157	0.111
COM3	-0.229	0.193	0.172	0.849	0.262	0.239	0.155	0.196	0.070	0.212	0.178	0.034	0.174	0.145
COM4	-0.139	0.068	0.140	0.719	0.164	0.163	0.122	0.039	0.073	0.082	0.031	0.038	0.145	0.059
CSAT1	-0.687	0.497	0.623	0.224	0.866	0.428	0.421	0.524	0.428	0.539	0.499	0.373	0.417	0.537
CSAT2	-0.705	0.569	0.619	0.315	0.893	0.529	0.414	0.578	0.484	0.555	0.600	0.412	0.455	0.592
CSAT3	-0.699	0.513	0.679	0.257	0.897	0.505	0.412	0.564	0.415	0.568	0.541	0.370	0.437	0.578
CSAT4	-0.725	0.545	0.677	0.301	0.909	0.468	0.461	0.575	0.495	0.604	0.553	0.389	0.413	0.570
DAP1	-0.406	0.241	0.432	0.178	0.476	0.864	0.321	0.248	0.347	0.231	0.302	0.216	0.450	0.395
DAP2	-0.414	0.287	0.403	0.221	0.441	0.782	0.296	0.324	0.332	0.253	0.354	0.290	0.367	0.402
DAP3	-0.397	0.210	0.357	0.200	0.469	0.805	0.272	0.244	0.276	0.291	0.346	0.246	0.366	0.365
DAP4	-0.395	0.234	0.375	0.164	0.431	0.818	0.247	0.215	0.311	0.231	0.276	0.256	0.365	0.369
DAP5	-0.397	0.191	0.378	0.203	0.452	0.855	0.219	0.233	0.310	0.256	0.341	0.218	0.409	0.390
DAP6	-0.322	0.218	0.369	0.176	0.400	0.812	0.317	0.234	0.205	0.227	0.230	0.220	0.495	0.379
DM1	-0.305	0.383	0.320	0.198	0.442	0.329	0.861	0.250	0.339	0.263	0.232	0.178	0.426	0.305
DM2	-0.287	0.415	0.348	0.190	0.439	0.309	0.904	0.287	0.290	0.282	0.240	0.223	0.301	0.279
DM3	-0.241	0.249	0.318	0.093	0.347	0.225	0.809	0.241	0.270	0.195	0.179	0.152	0.211	0.227

	CDLTY	CI	CLTY	COM	CSAT	DAP	DM	FLEX	INV	LGE	OPE	RRL	TA	WLP
FLEX1	-0.477	0.485	0.443	0.162	0.631	0.295	0.316	0.879	0.326	0.558	0.540	0.336	0.329	0.434
FLEX2	-0.357	0.385	0.298	0.224	0.452	0.272	0.203	0.809	0.223	0.460	0.407	0.287	0.242	0.350
FLEX3	-0.351	0.422	0.326	0.137	0.495	0.208	0.253	0.848	0.287	0.507	0.399	0.245	0.213	0.322
FLEX4	-0.424	0.439	0.380	0.209	0.527	0.249	0.238	0.853	0.236	0.524	0.472	0.319	0.277	0.383
INV1	-0.369	0.321	0.389	0.116	0.494	0.307	0.318	0.315	0.886	0.324	0.329	0.302	0.304	0.316
INV2	-0.341	0.297	0.370	0.088	0.444	0.345	0.322	0.296	0.875	0.316	0.273	0.220	0.295	0.262
INV3	-0.254	0.227	0.326	0.041	0.378	0.291	0.262	0.207	0.836	0.204	0.216	0.211	0.282	0.253
LGE1	-0.527	0.575	0.482	0.202	0.628	0.293	0.336	0.624	0.312	0.893	0.545	0.327	0.242	0.407
LGE2	-0.435	0.454	0.396	0.151	0.501	0.219	0.191	0.459	0.228	0.794	0.463	0.220	0.178	0.287
LGE3	-0.447	0.527	0.405	0.184	0.551	0.311	0.212	0.507	0.324	0.821	0.480	0.243	0.241	0.309
LGE4	-0.444	0.487	0.404	0.135	0.509	0.217	0.277	0.448	0.307	0.796	0.425	0.221	0.148	0.292
LGE5	-0.415	0.447	0.347	0.187	0.464	0.198	0.195	0.470	0.226	0.838	0.386	0.217	0.141	0.255
LGE6	-0.434	0.481	0.371	0.199	0.499	0.255	0.217	0.503	0.244	0.849	0.460	0.278	0.160	0.302
OPE1	-0.453	0.482	0.391	0.210	0.568	0.345	0.272	0.507	0.327	0.515	0.889	0.393	0.266	0.385
OPE2	-0.463	0.424	0.376	0.142	0.521	0.322	0.178	0.447	0.293	0.484	0.833	0.365	0.224	0.368
OPE3	-0.434	0.408	0.338	0.154	0.542	0.313	0.201	0.444	0.253	0.457	0.852	0.399	0.269	0.391
OPE4	-0.427	0.431	0.365	0.166	0.566	0.333	0.257	0.481	0.311	0.491	0.853	0.422	0.248	0.367
OPE5	-0.363	0.334	0.284	0.155	0.460	0.274	0.214	0.449	0.224	0.424	0.812	0.308	0.227	0.336
OPE6	-0.432	0.368	0.338	0.191	0.506	0.329	0.195	0.421	0.242	0.463	0.836	0.340	0.228	0.350
OPE7	-0.402	0.371	0.295	0.154	0.473	0.307	0.187	0.471	0.235	0.460	0.856	0.437	0.241	0.347
RRL1	-0.336	0.249	0.267	0.060	0.400	0.240	0.207	0.308	0.250	0.249	0.437	0.817	0.211	0.256
RRL2	-0.282	0.179	0.257	0.093	0.355	0.240	0.187	0.280	0.213	0.268	0.379	0.854	0.198	0.269
RRL3	-0.281	0.209	0.235	0.040	0.354	0.219	0.158	0.310	0.258	0.256	0.389	0.834	0.188	0.316
RRL4	-0.301	0.196	0.255	0.036	0.339	0.240	0.170	0.246	0.230	0.246	0.322	0.839	0.183	0.296
RRL5	-0.279	0.213	0.246	0.059	0.365	0.291	0.181	0.336	0.247	0.262	0.354	0.854	0.228	0.261
TA1	-0.376	0.334	0.418	0.196	0.469	0.460	0.404	0.302	0.307	0.215	0.227	0.201	0.897	0.367
TA2	-0.324	0.324	0.355	0.162	0.430	0.418	0.319	0.294	0.330	0.203	0.248	0.188	0.896	0.315
TA3	-0.288	0.283	0.353	0.180	0.365	0.425	0.235	0.238	0.256	0.174	0.292	0.252	0.844	0.268
Wpay	-0.548	0.376	0.507	0.127	0.639	0.466	0.317	0.444	0.322	0.375	0.430	0.332	0.364	1.000

JOURNAL PUBLICATIONS

1. Saha, J. & Sarma, T. R. (2025). Antecedents and consequences of customer satisfaction with Courier Services during disruptions: Empirical Evidence from Indian postal sector. *Journal of Advances in Management Research*. https://doi.org/10.1108/JAMR-04-2024-0129. (SCOPUS-Q2, ESCI)
2. Saha, J. & Sarma, T. R. (2024). Investigating the Transformative Effect of Technological and Service Innovations on Postal Sector Adaptability During the Pandemic Disruption in India. *International Journal of Innovation*, *12*(2), 1-34. https://doi.org/10.5585/2024.26161 (Web of Sciences, ESCI)
3. Saha, J. & Sarma, T. R. (2023). Exploring the last mile: Comparing India Post and private courier service providers' service quality, satisfaction, and preference. *Journal of the Asiatic Society of Mumbai, 97*(12), 7-21. (UGC Care I)

CONFERENCES

1. Saha, J. & Sarma, T. R. (2022). Courier, express and parcel service market during sudden disruption in the context of pandemic. *2nd Annual International Research Conference of IIM, Lucknow.*
2. Saha, J. & Sarma, T. R. (2022). Competitive Advantages of Courier and Express Industry Under Pandemic-Uncertainty Scenario. *Internation Conference of ICFAI Business School (IBS) Hyderabad.*

PAPERS COMMUNICATED WITH JOURNALS

1. Saha, J. & Sarma, T. R. Exploring the strategic management adaptations for enhancing the resilience of courier, express and parcel service providers.
2. Saha, J. & Sarma, T. R. Quantifying resilience to explore competitive preparedness of courier, express and parcel (CEP) service providers in India during disruptions.
3. Saha, J. & Sarma, T. R. Is courier, express and parcel industry resilient against disruptions? A data driven approach for assessing preparedness.
4. Saha, J. & Sarma, T. R. Courier service performance at times of crisis: Empirical evidence from B2B and B2C customers.

Journal of Advances in Management Research

Antecedents and consequences of customer satisfaction with courier services during disruptions: empirical evidence from Indian postal sector

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Abstract

Purpose – A comprehensive evaluation of the caliber of postal services within a disruptive environment is crucial for checking for the capability to adapt to evolving market circumstances and retain or acquire customers' confidence.

Design/methodology/approach – This study empirically established a new set of the courier service quality scale to measure the postal service's preparedness in times of disruption. Based on the dataset of 408 individual postal users, structural equation modeling was performed through the partial least square method using SMARTPLS software.

Findings – The hypotheses were tested: (1) courier service quality positively affects customer satisfaction; (2) courier service quality has a positive direct and indirect impact on customer loyalty via customer satisfaction as a mediator; (3) courier service quality has an indirect negative impact on customer disloyalty via customer satisfaction as a mediator; (4) customer satisfaction and customer loyalty positively affect the willingness to pay of customers. However, (5) customer disloyalty has no effect on the willingness to pay of customers.

Originality/value – The study's context-specific methodology is intended to help India Post's management, marketers and government obtain a better grasp of these complex occurrences. Consumers prioritize affordability over quality during times of economic hardship. But this study reveals that even customers are willing to pay more if the postal sector is consistent with the quality of services. This highlights the need for postal management to create a new express service in the postal business to suit customer expectations and increase income significantly.

Keywords Courier service quality, Customer satisfaction, Customer loyalty and disloyalty, Willingness to pay, Disruption, Postal sector

Paper type Research paper

1. Introduction

When anything out of the ordinary happens to a business, it might throw off its regular operations and processes (Bier *et al.*, 2020). There are a number of potential causes of such disruptions, including but not limited to natural catastrophes, technical failures, economic recessions, and supply chain disruptions (Xu *et al.*, 2020). Such an incident can severely damage a business's capacity to meet customer demands, generate revenue, and supply goods and services (Zhen *et al.*, 2016). According to Koks *et al.* (2019) and Ivanov and Dolgui (2020), businesses must have contingency plans and infrastructure to swiftly respond and recover from any possible interruptions. In the short and long term, natural disasters such as hurricanes, earthquakes, floods, and wildfires can wreak havoc on infrastructure and halt operations (Xu *et al.*, 2020). Cozzolino *et al.* (2018) noted that data leaks or downtime might be caused by digital disruptions such as cyberattacks or system breakdowns. Additionally, companies may suffer significant consequences in the event of a recession or a market collapse

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Investigating the transformative effect of technological and service innovations on postal sector adaptability during the pandemic Disruption in India

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Authors' Notes

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Abstract

Purpose: This study aims to investigate the inventive adjustments that have been made to provide uninterrupted delivery services by the postal sector amidst the COVID-19 pandemic.

Design/methodology/approach: This is an empirical study on the primary data collected from 354 postal users who use the services during and after pandemic disruption. This study uses regression, partial least square structural modeling and correlation to find out the relationship between dependent and independent variables.

Originality/Value: This paper presents an empirical study that examines the determinants of innovation impacting customer satisfaction among postal users in India during the pandemic disruption, addressing the dearth of previous empirical research on the adaptability of the postal system in this context. The results of our study can help the postal sector create more effective strategies for utilizing cutting-edge logistics technology, enabling them to change into delivery service providers that are innovation-driven.

Findings: The postal sector incorporates both service and technological innovation. The study also includes the other two constructs of logistics efficiency and customer satisfaction. Both service and technological innovation have a significant impact on customer satisfaction; however, service innovation is found to be the reason behind the survivability of the postal sector during the pandemic disruptive environment. Logistics efficiency positively affects customer satisfaction. However, logistics efficiency partially mediates the relationship between innovation and customer satisfaction. Overall, postal customers' satisfaction improves when innovation and logistics efficiency are present.

Theoretical/methodological Contributions: This study connects innovation with logistics efficiency and customer satisfaction in the context of Indian postal system and their adaptability during COVID-19

Social/management Contributions: The impact of innovation on logistical efficiency and consumer perception can be better understood with the help of this study. This can then be used to formulate or adjust strategies to boost the India Post's revenues and productivity.

Keywords: innovation, customer satisfaction, logistics efficiency, postal sector, pandemic, disruption

Investigando o Efeito Transformador das Inovações Tecnológicas e de Serviços na Adaptabilidade do Setor Postal Durante a Disrupção da Pandemia na Índia

Resumo

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EXPLORING THE LAST MILE: COMPARING INDIA POST AND PRIVATE COURIER SERVICE PROVIDERS' SERVICE QUALITY, SATISFACTION, AND PREFERENCE

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ABSTRACT

This study examines the fundamental components of service quality, customer satisfaction, and consumer preferences in the courier services industry, which operates within a dynamic and evolving context. The research aims to examine and contrast India Post with private courier service providers in order to comprehend the elements that impact consumer decisions during the last phase of the delivery process. Service quality is assessed by a set of metrics that examine attributes such as the quality of information, the quality of personal interactions, the timeliness of service, the correctness of service, the reliability of service, the level of customer care, the price of service, and the degree of customization. Customer satisfaction is evaluated by assessing the degree to which client expectations are fulfilled and reviewing the overall customer experience. Moreover, a thorough analysis is conducted to determine the key determinants that impact customers' choices while deciding between India Post and commercial service providers. This report provides vital insights into the changing landscape of last-mile logistics in northeast India. This study provides stakeholders and policymakers with a detailed understanding of the factors that influence customer decisions by highlighting the strengths and weaknesses of both public and private players. The primary objective of the research is to provide insights that may be used to improve service quality, increase customer satisfaction, and influence customer choices in the highly fragmented courier services industry. According to the results, there appears to be a positive relationship between the constructs of postal and courier service quality. However, to satisfy the needs of their clients, both types of service providers should work together.

KEYWORDS: postal and courier services, customer satisfaction, customer preference

1. INTRODUCTION

Many studies have been conducted on the banking industry and other service sectors, but a few on customers' satisfaction and quality of postal and courier services (Kiumarsi *et al.*, 2015). Courier services are emerging at a greater pace due to the continuous improvement of e-commerce. Customers' choices and preferences have changed over the years. They do online shopping comfortably, sitting at home, the office, or any place, and expect faster delivery at a convenient time (Huang *et al.* 2009). In the process of communication between B2C or even B2B transactions, courier services are a vital link. The earlier Indian postal system, i.e., India Post, used to deliver mail and parcels to a large number of people in the country. Although India Post is providing commendable services, that is not sufficient to meet the needs of the customers. There is a slight difference between courier services and ordinary mail; the former provides customized and personalized services. Hence, domestic, and international courier service providers emerged and started spreading roots in every corner of rural and urban areas of India (Annker 2007). Liberalization has sat up a competitive market, and both India post and courier service providers are complementary to each other. According to Noordin (2012), courier services include the picking up, transportation, and delivery of letters or documents, parcels, and packages to both domestic and international destinations by using one or more