# Total number of errors per step

	💩 calls_step	⊕ COUNT	# PERCENT
1	Step 1	227	5. 3727810651
2	Step 2	2536	60.023668639
3	Step 3	676	16
4	Step 4	526	12.449704142
5	Step 5	260	6. 1538461538

# Most common error types per step

#### **Total Errors by Step**

Obs errors_step   errors_description   error_count   23   Step 2   TimeoutError   Timeout has occurred   getAccountHo   2   46   Step 3   HttpErrorResponse   Http failure	
Step 1   HttpErrorResponse   Http failure response for http   40   24   Step 2   GW03   2   48   Step 3   Info retrieved - match with Myl   2   Step 1   driving-license-not-found   6   25   Step 2   null is not an object (evaluating 'e.value to ISOSt   2   49   Step 3   Cannot read properties of undit   3   Step 1   TimeoutError   Timeout has occurred   getConfig   5   26   Step 2   HttpErrorResponse   DIPSA_BOL_0086   Http failure   2   50   Step 3   Cannot read properties of undit   3   Step 3   driving-license-not-found   4   Step 1   TimeoutError   Timeout has occurred   getUWCompany   4   27   Step 2   You have entered invalid information. Please try a   1   51   Step 3   driving-license-not-found   5   Step 1   TimeoutError   Timeout has occurred   2   28   Step 2   Cannot read properties of undefined (reading 'name   1   53   Step 3   Uncaught (in promise) or 'tsor' of the step 3	e response for http 21
2 Step 1 driving-license-not-found 6 25 Step 2 null is not an object (evaluating 'e.value.toISOSt 2 - 49 Step 3 Cannot read properties of undit and secured   getConfig   5 26 Step 2 HttpErrorResponse   DIPSA_BOL_0086   Http failure 2 50 Step 3 Cannot read properties of undit and secured   getConfig   5 Step 1 TimeoutError   Timeout has occurred   getUWCompany 4 27 Step 2 You have entered invalid information. Please try a 1 51 Step 3 driving-license-not-found 5 Step 1 TimeoutError   Timeout has occurred   getUWCompany 2 Step 2 Cannot read properties of undefined (reading 'name 1 52 Step 3 Uncaught (in promise): c. ("sor 5 Step 2 driving-license-not-found 780 29 Step 2 TimeoutError   Timeout has occurred   getConfig   1 54 Step 3 HttpErrorResponse   DIPSA_BOL_0036   Http failure 272 30 Step 2 TimeoutError   Timeout has occurred   getCarModels 1 55 Step 3 HttpErrorResponse   DIPSA_BOL_0036   Http failure 271 31 Step 2 Cannot read properties of undefined (reading 'addr 1 56 Step 3 undefined is not an object (evaluating 'this.quote 1 58 Step 3 null is not an object (evaluating 'this.quote 1 59 Step 3 null is not an object (evaluating 'this.quote 1 59 Step 3 null is not an object (evaluating 'this.quote 1 59 Step 3 TimeoutError   Timeout has occurred   Step 3 TimeoutError   TimeoutError   Timeout has occurred   Step 3 TimeoutError   Timeout has occurred   Step 3 TimeoutError   Timeout has occurred	DL_0081   Http failure 7
3 Step 1 TimeoutError   Timeout has occurred   getConfig   5 26 Step 2 HttpErrorResponse   DIPSA_BOL_0088   Http failure 2 50 Step 3 Cannot read properties of undid information. Please try a 1 51 Step 3 driving-license-not-found 5 Step 1 TimeoutError   Timeout has occurred   getUWCompany 4 27 Step 2 You have entered invalid information. Please try a 1 51 Step 3 driving-license-not-found 5 Step 1 TimeoutError   Timeout has occurred 2 28 Step 2 Cannot read properties of undefined (reading 'name 1 53 Step 3 Sorry, your login entry doesn't 6 Step 2 driving-license-not-found 780 29 Step 2 TimeoutError   Timeout has occurred   getConfig   1 54 Step 3 Sorry, your login entry doesn't 6 Step 2 HttpErrorResponse   DIPSA_BOL_0036   Http failure 272 30 Step 2 TimeoutError   Timeout has occurred   getCarModels 1 56 Step 3 HttpErrorResponse   DIPSA_BOL_0036   Http failure 272 30 Step 2 TimeoutError   Timeout has occurred   getCarModels 1 56 Step 3 undefined is not an object (evaluating 'this quote 1 57 Step 3 null 1 Step 2 Unknown error 183 32 Step 2 TimeoutError   Timeout has occurred   createQuote 1 58 Step 3 You have entered invalid information. Please try a 1 Step 2 undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 2 Undefined is not an object (evaluating 'this quote 1 58 Step 3 Nove entered invalid information. Please try a 1 Step 3 Nove entered invalid information. Plea	3
4 Step 1 TimeoutError   Timeout has occurred   getUWCompany 4 27 Step 2 You have entered invalid information. Please try a 1 51 Step 3 driving-license-not-found 52 Step 3 Uncaught (in promise): o: ("sor 5 Step 1 TimeoutError   Timeout has occurred   getUWCompany 4 27 Step 2 Cannot read properties of undefined (reading 'name 1 53 Step 3 Sorry, your login entry doesn't 54 Step 3 Step 3 Sorry, your login entry doesn't 55 Step 2 driving-license-not-found 780 29 Step 2 TimeoutError   Timeout has occurred   getConfig   1 54 Step 3 HttpErrorResponse   DIPSA_B	fined (reading 'year 3
Step 1 TimeoutError   Timeout has occurred   getUWCompany   4   27   Step 2   You have entered invalid information. Please try a   1   52   Step 3   Uncaught (in promise): o: ("sor   Step 2   TimeoutError   Timeout has occurred   getConfig   1   53   Step 3   Step	fined (reading 'name 3
5 Step 1 TimeoutError   Timeout has occurred   2 28 Step 2 Cannot read properties of undefined (reading 'name   1 63 Step 3 Sorry, your login entry doesn't login entry login entry doesn't login entry login entr	2
6 Step 2 driving-license-not-found 780 29 Step 2 TimeoutError   Timeout has occurred   getConfig   1 54 Step 3 HttpErrorResponse   DIPSA_BOL_0036   Http failure 272 30 Step 2 TimeoutError   Timeout has occurred   getCarModels 1 56 Step 3 HttpErrorResponse   DIPSA_BOL_0036   Http failure 272 30 Step 2 TimeoutError   Timeout has occurred   getCarModels 1 56 Step 3 Undefined is not an object (evaluating 'addr 1 57 Step 3 undefined is not an object (evaluating 'this.quote 1 58 Step 3 You have entered invalid inform 10 Step 2 undefined is not an object (evaluating 'this.quote 1 59 Step 3 undefined is not an object (evaluating 'this.quote 1 59 Step 3 undefined is not an object (evaluating 'this.quote 1 Step 3 Uncaught (in promise): i: {"name":"CustomUiError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError! Timeout has occurred   the object is in an invalid state. 1 62 Step 3 TimeoutError!	xt":"script","load 2
7 Step 2 HttpErrorResponse   DIPSA_BOL_0036   Http failure	natch our records. 2
8 Step 2 HttpErrorResponse   Http failure response for http 271 31 Step 2 Cannot read properties of undefined (reading 'addr 1 56 Step 3 undefined is not an object (evaluating 'this.quote 1 58 Step 3 you have entered invalid inform 1 Step 2 undefined is not an object (evaluating 'this.quote 1 Step 2 HttpErrorResponse   DIPSA_BOL_0085   Http failure 1 Step 2 Uncaught (in promise): i: {"name":"CustomUiError", 6 Step 3 Undefined is not an object (evaluating 'thength') 1 Step 2 Uncaught (in promise): i: {"name":"CustomUiError", 6 Step 3 Undefined is not an object (evaluating 'thength') 1 Step 2 Uncaught (in promise): i: {"name":"CustomUiError", 6 Step 3 TimeoutError   Timeout has occurred   General Pailure	DL_0085   Http failure 2
8 Step 2 HttpErrorResponse   Http failure response for http 271 31 Step 2 Cannot read properties of undefined (reading 'addr 1 57 Step 3 null 58 Step 3 You have entered invalid inform 1 Step 2 null 118 33 Step 2 undefined is not an object (evaluating 'this quote 1 Step 3 null is not an	J_0050   Http failure r 2
9 Step 2 Unknown error 183 32 Step 2 TimeoutError   Timeout has occurred   createQuote 1 58 Step 3 You have entered invalid information of the step 2 null 118 33 Step 2 undefined is not an object (evaluating 'this quote 1 59 Step 3 null is not an o	uating 'e.question 2
10 Step 2 null 118 33 Step 2 undefined is not an object (evaluating 'this.quote 1 59 Step 3 null is not an object (evaluating 'this.quote 1 59 Step 3 null is not an object (evaluating 'this.quote 1 59 Step 3 null is not an object (evaluating 'this.quote 1 60 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 2 Uncaught (in promise): i: {"name": "CustomUiError", 61 35 Step 2 The object is in an invalid state. 1 62 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object   Timeout has object (evaluating 'this.quote 1 Step 3 TimeoutError   Timeout has object   Timeo	1
11 Step 2 HttpErrorResponse   DIPSA_BOL_0085   Http failure	ation. Please try a 1
11 Step 2 HttpErrorResponse   DIPSA_BOL_0085   Http failure	't.StreetNumber' 1
12 Step 2 Uncaught (in promise): i: {"name":"CustomUiError", 61 35 Step 2 The object is in an invalid state. 1 61 Step 3 TimeoutError   Timeout has oc	urred   getDriverAdd 1
62 Step 3 Ilmeout nos oc	urred   getConfig   1
13 Step 2 personal-info-mismatch 58 36 Step 2 undefined is not an object (evaluating 'n.name') 1 63 Step 3 TimeoutError   Timeout has oc	urred   createQuote 1
	urred 1
14 Step 2 Cannot read properties of undefined (reading 'year 48 37 Step 2 TimeoutError   Timeout has occurred   contactManag 1 64 Step 3 HttpErrorResponse   DIPSA_B	DL_0170   Http failure 1
15 Step 2 undefined is not an object (evaluating 'e.year')  29 38 Step 2 Required parameter globalSearchTxt was null or und  1 Could not decode barcode - not an object (evaluating 'e.year')	result 1
66 Step 3 Cannot read properties of under	ined (reading 'leng 1
16 Step 2 Info retrieved - match with Myl 14 39 Step 2 undefined is not an object (evaluating 'e.question 1 67 Step 3 undefined is not an object (evaluating	uating 't.length') 1
17 Step 2 HttpErrorResponse   DIPSA_BOL_0074   Http failure 5 40 Step 2 this.originalDate.format is not a function. (In 't 1 68 Step 3 undefined is not an object (evaluation)	-
18 Step 2 HttpErrorResponse   DIPSA_BOL_0038   Http failure 4 41 Step 2 self.eventCallbacks['token'] is not a function. (I 1	
70 Step 4 undefined is not an object (eva	uating 'n.name') 50
19 Step 2 TimeoutError   Timeout has occurred   updateDraftS 3 42 Step 2 e is undefined 1 71 Step 4 Info retrieved - match with Myl	8
20 Step 2 Could not decode barcode - no result 3 43 Step 3 self.eventCallbacks.token is not a function 129 72 Step 4 n is undefined	1
21 Step 2 HttpErrorResponse   DIPSA_AU_0050   Http failure r 2 44 Step 3 Unknown error 116 73 Step 4 HttpErrorResponse   Http failure r	response for http 1
74 Step 5 TimeoutError   Timeout has occurred   cet   IWCompany   2 45 Step 2   celf eventCallbacks[Itaken] is not a function / I	urred   getConfig   2
22 Step 2 Timeouterror   Timeout has occurred   getOvvCompany 2 45 Step 3 Self.eventCalibacks[token*] is not a function. (I 01 75 Step 5 HttpErrorResponse   Http failure   Timeout has occurred   getOvvCompany 2 45 Step 3 Self.eventCalibacks[token*] is not a function. (I 01 75 Step 5 Step	response for http 1

# Total number of calls per step

	\delta calls_step	⊕ COUNT	# PERCENT
1	Step 1	227	5.3727810651
2	Step 2	2536	60.023668639
3	Step 3	676	16
4	Step 4	526	12.449704142
5	Step 5	260	6. 1538461538

# Most common call reasons per step

		💩 calls_reason	# reason_count
1	Step 1	General Inquiry	145
2	Step 1	Received an e…	82
3	Step 2	General Inquiry	1495
4	Step 2	Received an e…	1041
5	Step 3	General Inquiry	381
6	Step 3	Received an e…	295
7	Step 4	General Inquiry	279
8	Step 4	Received an e…	247
9	Step 5	General Inquiry	150
10	Step 5	Received an e…	110

### Correlation between errors and calls

	♠ errors_step	errors_descri	# error_count # call_co	ount	26	Step 2	HttpErrorResp	2	0	51	Step 3	driving-licen	2	0
1	Step 1	HttpErrorResp	40	1	27	Step 2	You have ente***	1	1	52	Step 3	Uncaught (in…	2	0
2	Step 1	driving-licen…	6	0	28	Step 2	Cannot read p	1	0	53	Step 3	Sorry, your 1···	2	0
3	Step 1	TimeoutError***	5	0	29	Step 2	TimeoutError***	1	0	54	Step 3	HttpErrorResp	2	0
4	Step 1	TimeoutError	4	0	30	Step 2	TimeoutError***	1	0	55	Step 3	HttpErrorResp	2	0
5	Step 1	TimeoutError***	2	0	31	Step 2	Cannot read p	1	0	56	Step 3	undefined is	2	0
6	Step 2	driving-licen…	780	77	32	Step 2	TimeoutError	1	1	57	Step 3	null	1	0
7	Step 2	HttpErrorResp	272	26	33	Step 2	undefined is	1	0	58	Step 3	You have ente	1	0
8	Step 2	HttpErrorResp	271	29	34	Step 2	undefined is	1	1	59	Step 3	null is not a	1	0
	Step 2	Unknown error	183	24	35	Step 2	The object is…	1	0	60	Step 3	TimeoutError	1	0
	Step 2	null	118	13	36	Step 2	undefined is	1	0	61	Step 3	TimeoutError	1	0
	Step 2	HttpErrorResp	111	8	37	Step 2	TimeoutError	1	0	62	Step 3	TimeoutError	1	0
	Step 2	Uncaught (in	61	8	38	Step 2	Required para***	1	0	63	Step 3	TimeoutError	1	0
	Step 2	personal-info	58	4	39	Step 2	undefined is	1	0	64	Step 3	HttpErrorResp	1	0
	Step 2	Cannot read p	48	4	40	Step 2	this.original	1	0	65	Step 3	Could not dec	1	1
	Step 2	undefined is	29	2	41	Step 2	self.eventCal···	1	0	66	Step 3	Cannot read p	1	0
	Step 2	Info retrieve HttpErrorResp	14	6	42	Step 2	e is undefined	1	0	67	Step 3	undefined is	1	0
	Step 2 Step 2	HttpErrorResp	5	0	43	Step 3	self.eventCal···	129	2	68	Step 3	undefined is	1	0
	Step 2	TimeoutError	3	0	44	Step 3	Unknown error	116	0		Step 4	Cannot read p	53	0
	Step 2	Could not dec	3	0	45	Step 3	self.eventCal···	61	1		Step 4	undefined is	50	0
	Step 2	HttpErrorResp	2	0	46	Step 3	HttpErrorResp***	21	1		Step 4	Info retrieve	8	0
	Step 2	TimeoutError	2	0		Step 3	HttpErrorResp***	7	0		Step 4	n is undefined	1	0
	Step 2	TimeoutError	2	2		Step 3	Info retrieve***	3	0		Step 4	HttpErrorResp	1	0
	Step 2	GW03	2	0		Step 3	Cannot read p	3	0		Step 4 Step 5	TimeoutError	2	0
	Step 2	null is not a	2	0		-	Cannot read p	3	0		-	HttpErrorResp	1	0
	•				50	Step 3	cannot read p	3	U	(0	Step 5	Attphreorhesp	1	U

# Analysis& & Insights

Investigate the high occurrence of errors in Step 2 (Vehicle Info) and develop targeted solutions to minimize errors, as it represents the highest percentage of errors (60%).

Identify any potential design or usability issues that may contribute to the high frequency of errors in Step 2 and Step 3 (Payment Method) and address them to enhance user experience and reduce error rates.

It is clear that there are certain error types that are most likely to result in a call to the call center.

Some calls are not related to errors, it is just general inquiries. This indicates that there are potential missing instructions from the website that requires users to find guidance.

## Recommendations

Improve the clarity of information and instructions in the application or website, particularly in steps where users frequently make general inquiry calls.

Add more in-app assistance like FAQs, to help users with common questions and lower the need for call support.

Consider implementing alternative customer support channels, such as live chat and email, which may be more efficient for users solving the issues.

Keep monitoring and analyze the relationship between errors and calls to identify new trends, emerging issues or areas for improvement.

# SAS codes

```
proc import datafile="Z:\D\BIWA Use Case"
    out=error table
    dbms=xlsx
    replace;
    getnames=yes;
    sheet="error_table";
run;
proc import datafile="Z:\D\BIWA Use Case"
    out=call table
    dbms=xlsx
    replace;
    qetnames=yes;
    sheet="call table";
run;
proc sql;
create table numOfError as
select errors step, count(*) as total errors
from error table
group by errors step;
quit;
proc freq data=call_table noprint;
    tables calls_step / out=calls_by_step;
run;
```

```
proc sql;
create table mostCommon as
select errors_step,errors_description,count(*) as error_count
from error table
group by errors step, errors description
order by errors step, error count desc;
quit;
proc sql;
create table callsPerStep as
select calls step, count(*) as total calls
from call table
group by calls step;
quit;
proc sql;
create table mostCommonReason as
select calls step, calls reason, count (*) as reason count
from call table
group by calls step, calls reason
order by calls step, reason count desc;
quit;
```

# SAS codes (continued)

```
proc sql;
create table correlation as
SELECT e.errors step, e.errors description, COUNT(*) as error count, COUNT(c.calls user id) as call count
FROM error table e
LEFT JOIN call table c ON e.errors user id = c.calls user id AND e.errors date = c.calls date AND e.errors step
GROUP BY e.errors step, e.errors description
ORDER BY e.errors step, error count DESC;
quit;
ods listing close;
ods html file="Z:\D\report.html";
proc print data=mostCommon;
    title "Total Errors by Step";
run:
proc freq data=call table noprint;
    tables calls step/ out=calls per step;
run;
ods html close;
ods listing;
```