



Tripda – Cohort
November 2015



Private and Confidential



Agenda

Explaining Cohorts

Importance of Cohort analysis

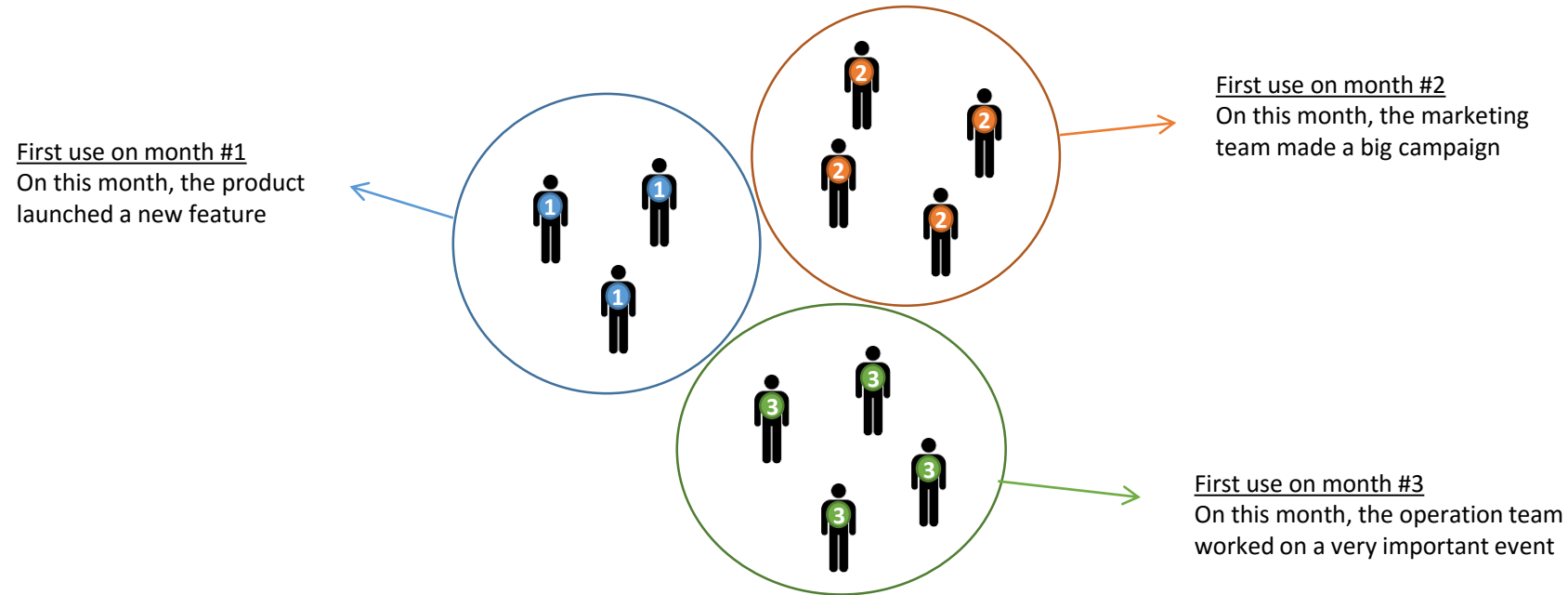
Analyzing Cohorts

Cohort Analysis November 2015



What is cohort?

Cohort: A cohort is a group of people who share a common characteristic over a certain period of time.



For our cohort, we agroup the users by the first time that he created a booking and the first time that he offered a ride with bookings. This analysis is important to measure the impact of an action. In other words, analyze the behavior of users who share the same characteristic, like users who use our product for the first time after a new feature, for example.

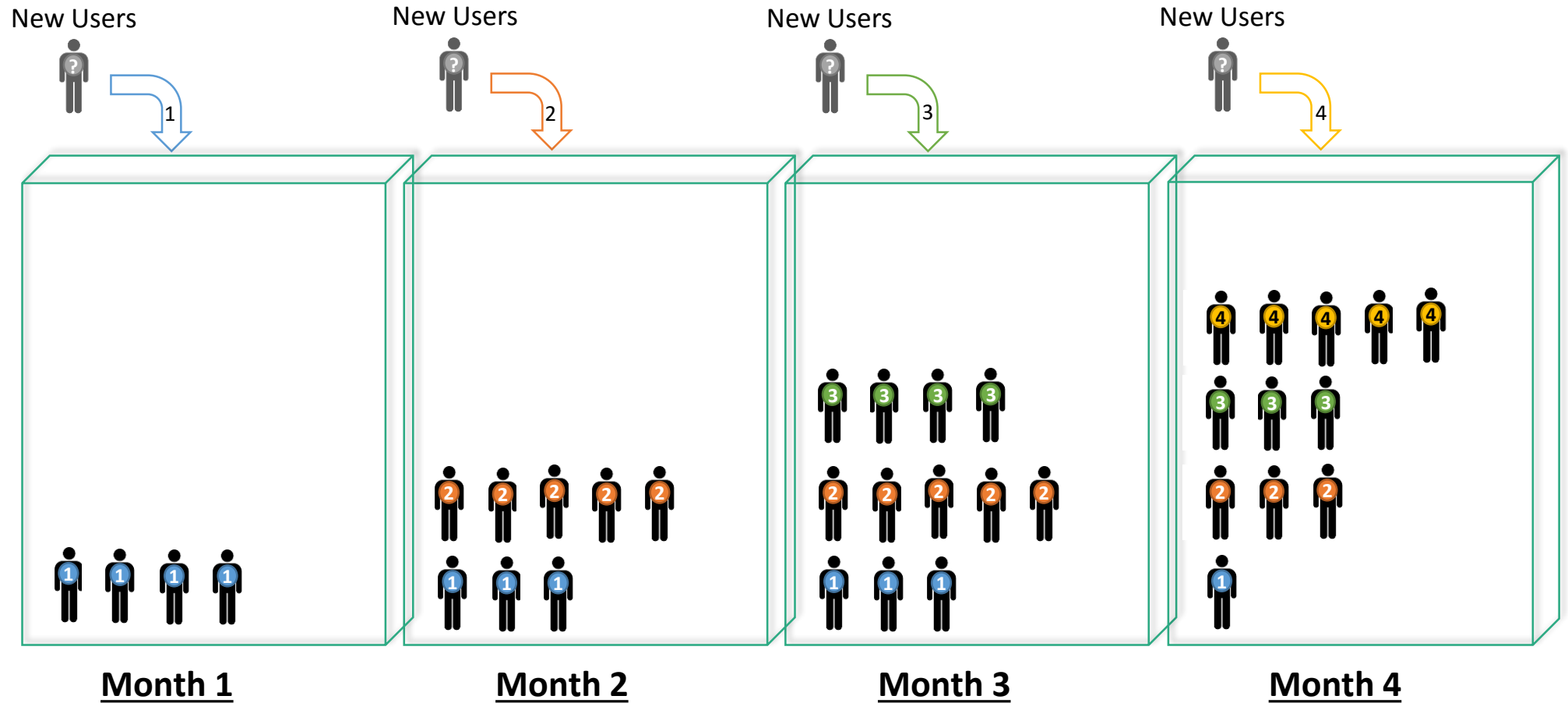
Obs.: We didn't count trips without passengers.

Cohort size: The number of unique users who use our product for the first time on the report month.

Retention rate: The number of unique users returned over the cohort size.



What is cohort?



New Users (cohort size)

4

5

4

5

Users with action on the month

4

$3 + 5 = 8$

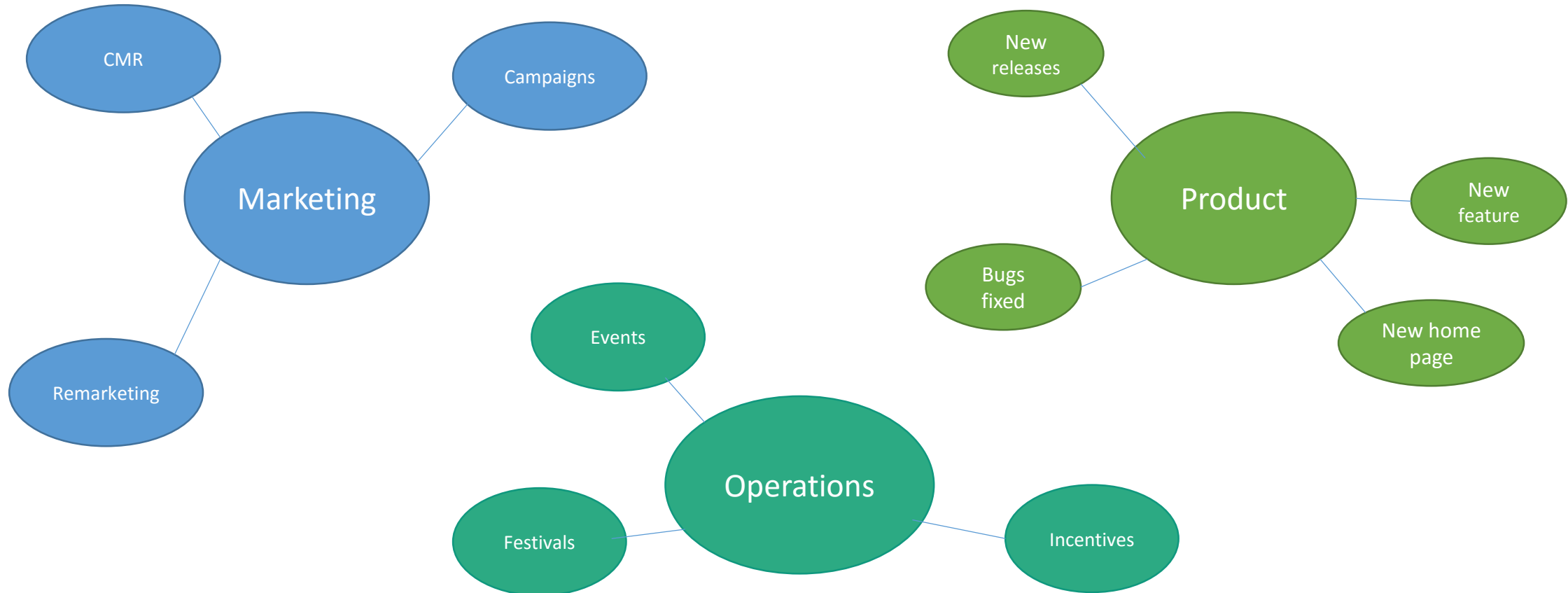
$3 + 5 + 4 = 12$

$1 + 3 + 3 + 5 = 12$



What influence the cohort?

Cohort is important to see the performance of our product, influence of new features or regional incentives. But there a lot of other factors that changes the cohort:

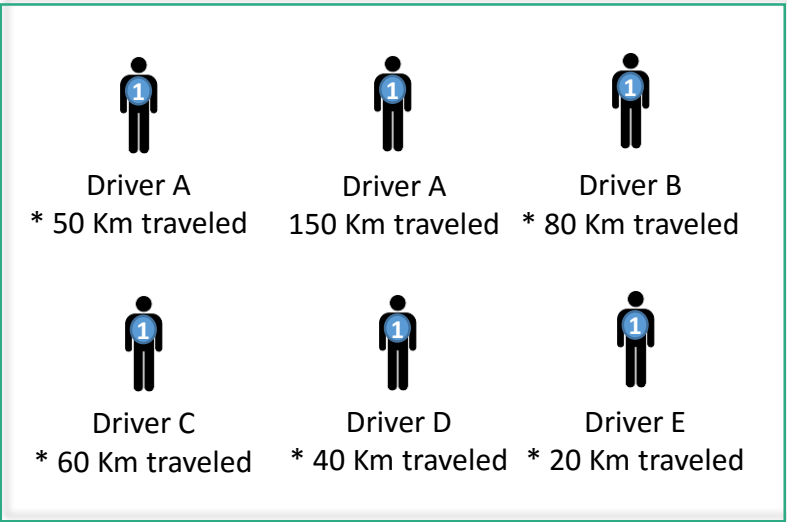




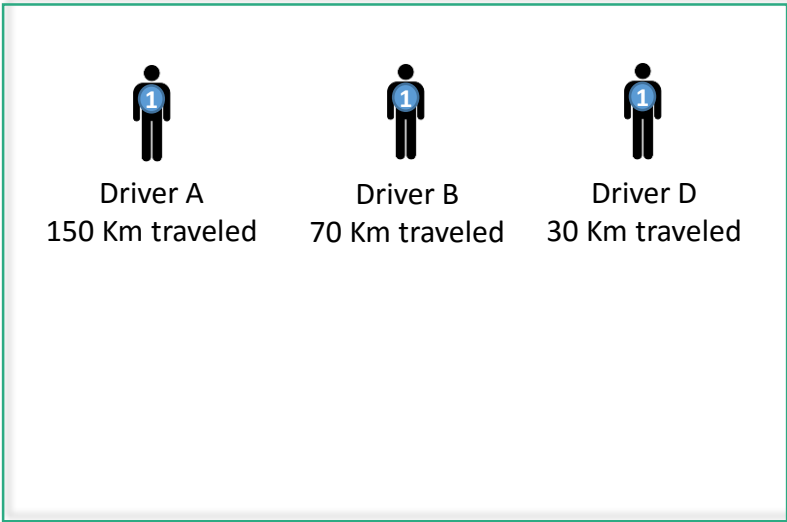
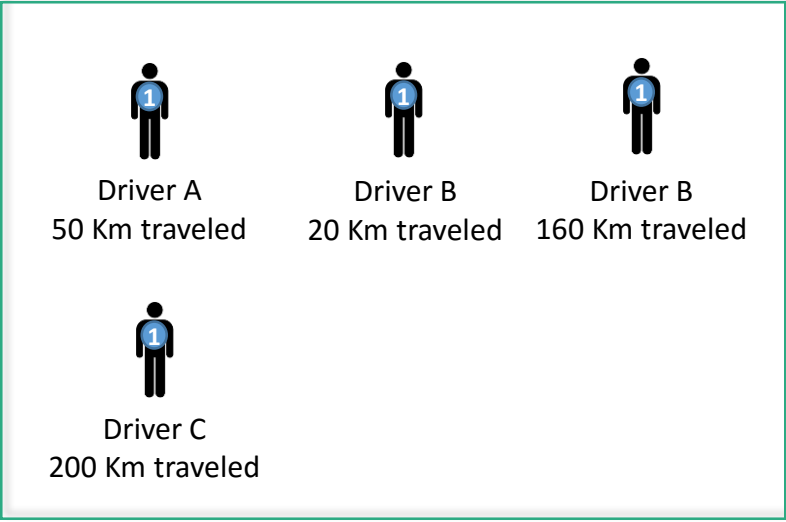
Retention Rate 1 (RR1)

Retention rate 1 (RR1): takes the count of individual passengers throughout the time into consideration. Please follow the below example to illustrate the concept

$$RR1 = \frac{\text{number of unique users returned}}{\text{number of unique users on their first ride (cohort size)}}$$



* First time using Tripda



Month 1

Month 2

Month 3

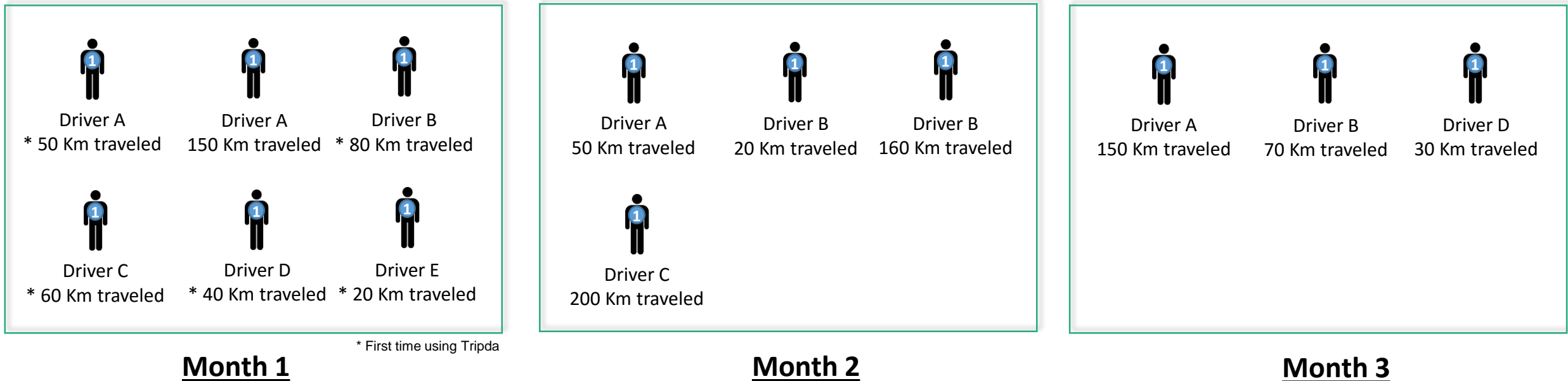
	Same month	1 month	2 month
RR1	1/5 = 20%	3/5 = 60%	3/5 = 60%
RR1 - Accumulated	1/5 = 20%	(1 + 2)/5 = 60%	(1 + 2 + 1)/5 = 80%



Retention Rate 2 (RR2)

Retention rate 2 (RR2): takes the sum of the total distance traveled by the chosen cohort throughout the time into consideration. Please see the below example to illustrate the concept

$$RR2 = \frac{\text{total distance traveled of the users returned}}{\text{total distance traveled of users on their first ride (cohort size)}}$$



	Same month	1 month	2 month
RR2	150/250 = 60%	430/250 = 172%	250/250 = 100%
RR2 - Accumulated	150/250 = 60%	(150 + 430)/250 = 232%	(150 + 430 + 250)/ 250 = 332%



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Kinds of data

- There are two kinds of data: reporting and exploratory.
 - Reporting: Is predictable. Have number that we expect to see and exceptions brings us questions about it.
 - Exploratory: Is speculative. Try to answer some questions many times from reporting data.

IMPORTANT: Cohort is not a exploratory data! Cohort must to bring more questions about the users behavior and how our acts influences them.

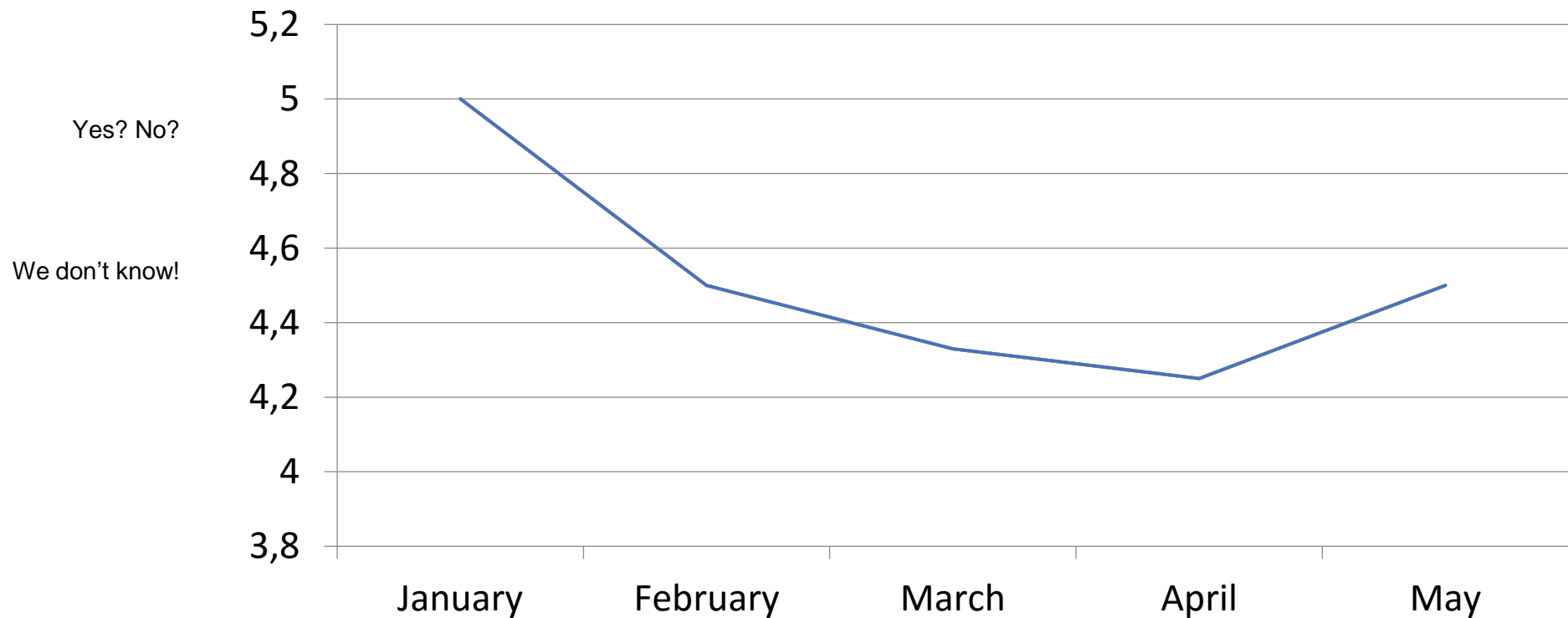


Example of cohort

For example:

Is this company growing or stagnating?

	January	February	March	April	May
Avg spent by customers	\$5	\$4.5	\$4.33	\$4.25	\$4.5





Example of cohort

	January	February	March	April	May
Avg spent by customers	\$5	\$4.5	\$4.33	\$4.25	\$4.5

Grouping the users by the month of the first buy, we can see that the customers from january are not returning.

In other side, the costumers from March, April and May spent much more on the current and forward months.

January	\$5	\$3	\$2	\$1	\$0.5
February		\$6	\$4	\$2	\$1
March			\$7	\$6	\$5
April				\$8	\$7
May					\$9

It's easy to see that this company is not stagnating, but there are so many question about these numbers, like:

- What made the customers spend more? Is a bug fixed or a new home page?
- How can we bring back the january's customers? By an e-mail marketing telling about new features?
- For what reason the customers from may spend more? Is because an event? How can we keep these customers using our product?



Example of cohort

Now the cohort on the usually format. All data are bring to the left and the columns is how many months passed by from the referent month.

Cohort	1	2	3	4	5
January	\$5	\$3	\$2	\$1	\$0.5
February	\$6	\$4	\$2	\$1	
March	\$7	\$6	\$5		
April	\$8	\$7			
May	\$9				
Average	\$7	\$5	\$3	\$1	\$0.5

Cohort	1	2	3	4	5
January	100%	60%	40%	20%	10%
February	100%	67%	33%	17%	
March	100%	86%	71%		
April	100%	88%			
May	100%				



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How to analyze cohort?

- How cohort size is growing?
 - Is a specific campaign?
 - Is the cohort size decreasing?




			RR1							
Country	Month	Cohort size	(B) Same month	(C) 1 month	(D) 2 months	(E) 3 months	(F) 4 months	(G) 5 months	(H) 6 months	(I) More than 6 months
TOTAL	Jan 2015	1430	25.4%	14.8%	11.0%	11.0%	7.3%	7.7%	6.1%	7.3%
	Feb 2015	1292	28.2%	19.0%	15.0%	11.6%	8.9%	7.8%	9.4%	5.6%
	Mar 2015	2226	39.1%	15.3%	12.1%	9.5%	6.8%	7.9%	6.0%	
	Apr 2015	2191	48.7%	19.4%	14.9%	8.4%	13.2%	9.0%		
	May 2015	1959	27.3%	13.7%	9.1%	10.7%	7.0%			
	Jun 2015	2340	21.9%	10.3%	9.7%	7.4%				
	Jul 2015	2787	13.3%	10.3%	5.3%					
	Aug 2015	3163	24.0%	16.0%						
	Sep 2015	1837	19.3%							



How to analyze cohort?

- How is the retention along the months?
 - The retention is decreasing fast?
 - How can I improve the churn rate?



			RR1							
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	Sep 2015	1837	19.3%							



How to analyze cohort?

- The cohort is being better comparing the months?
 - We made more users return comparing the other months?
 - What made the users return more?

			RR1							
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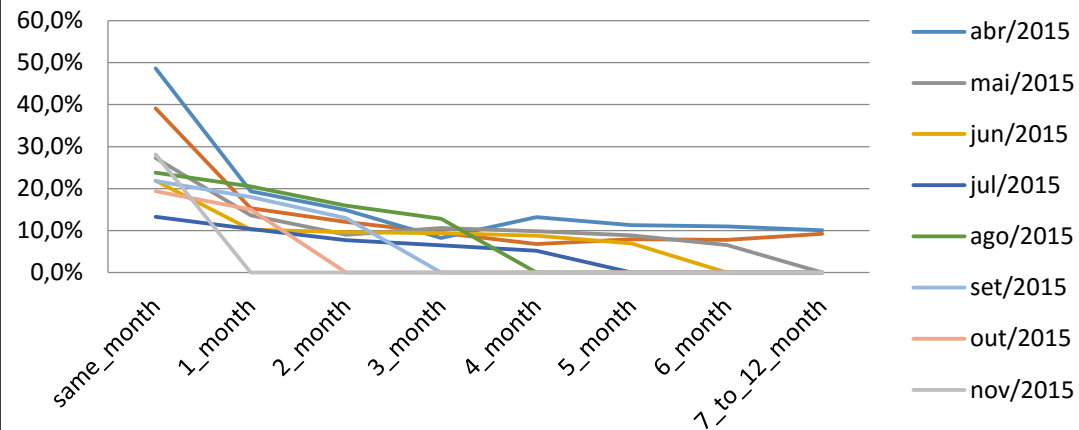
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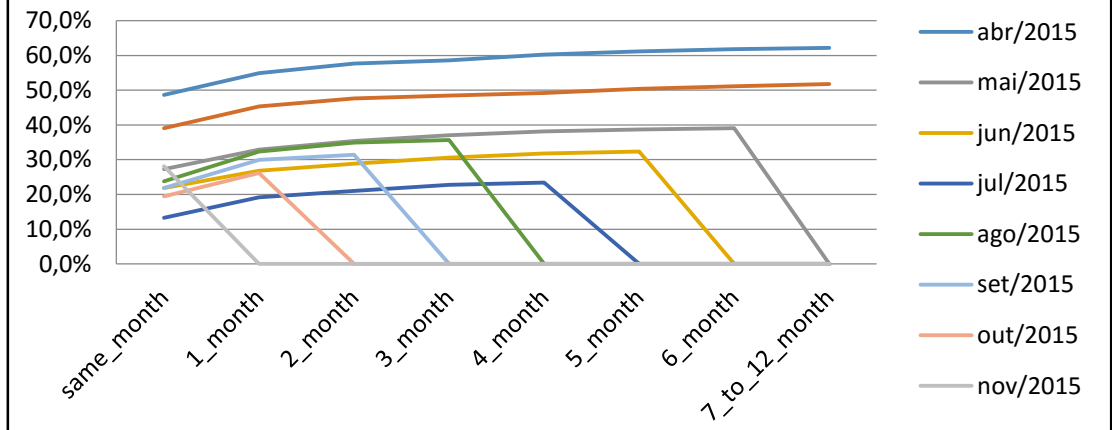


Total

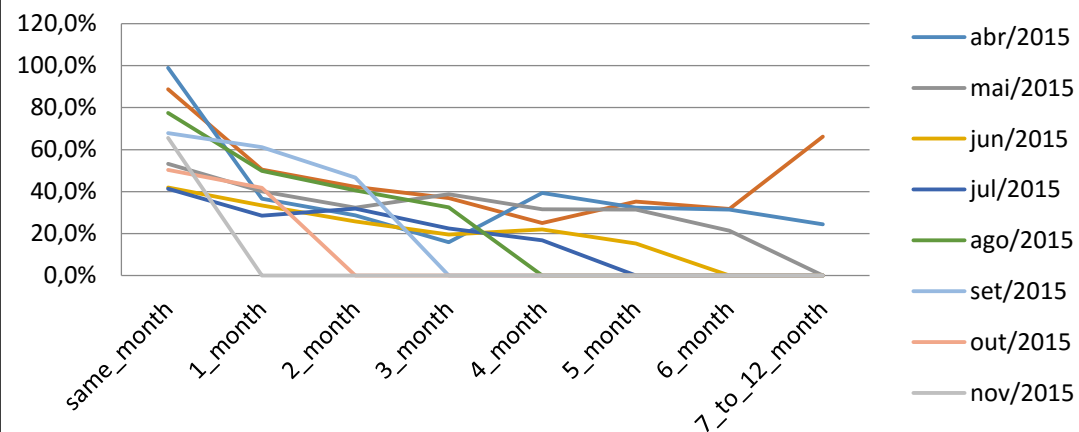
RR1 - Driver



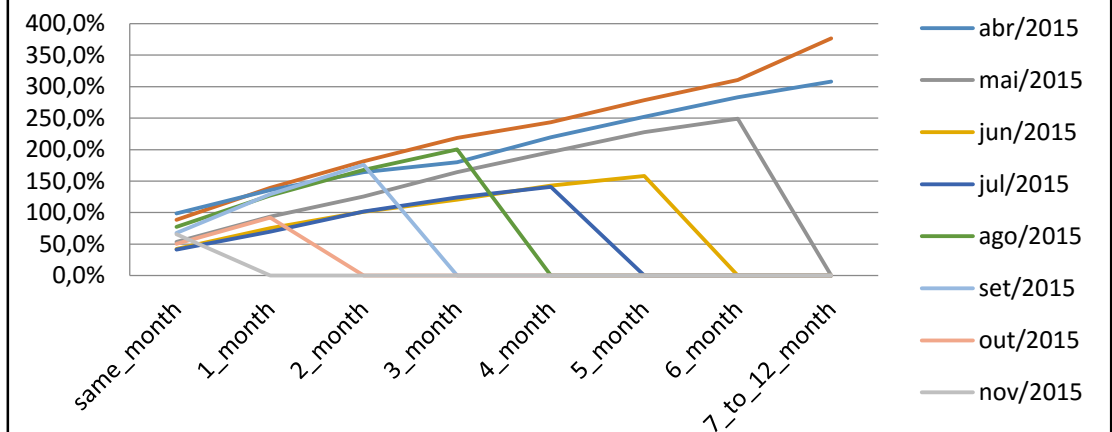
RR1 Accumulated - Driver



RR2 - Driver



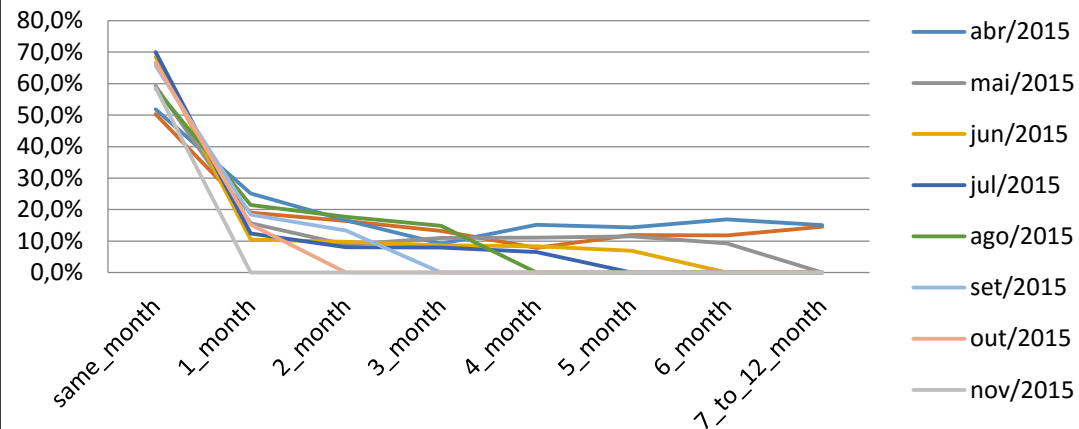
RR2 Accumulated - Driver



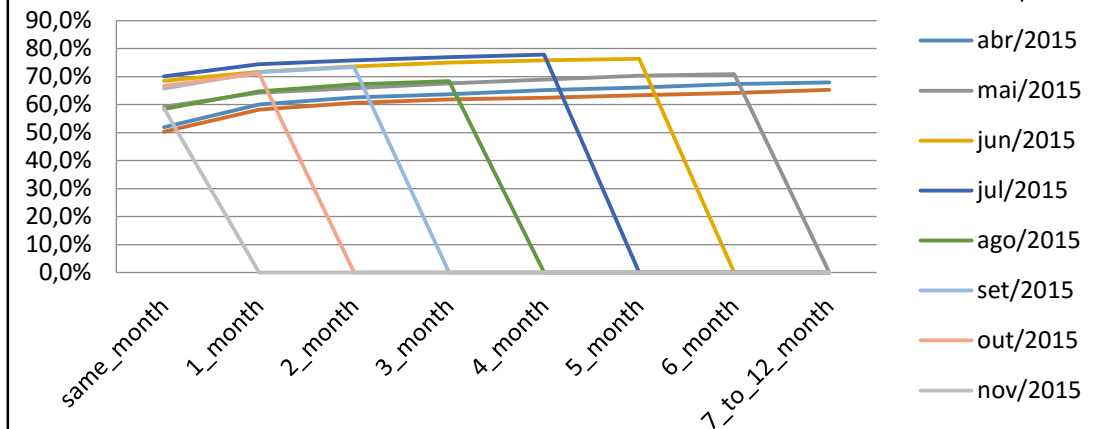


Total

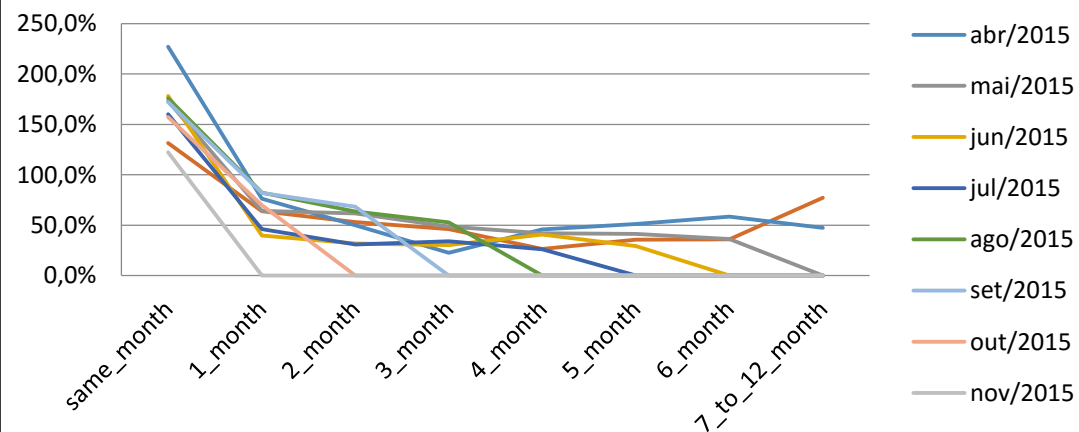
RR1 - Pax



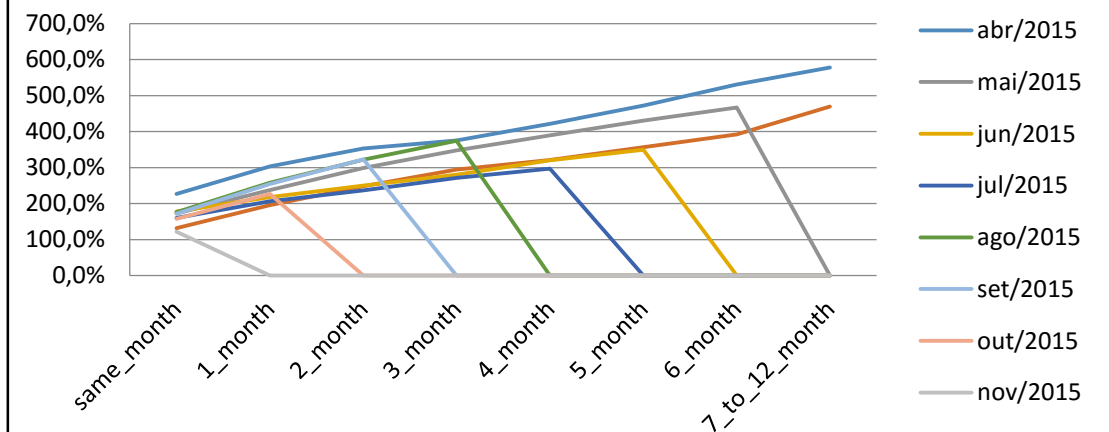
RR1 Accumulated - Pax



RR2 - Pax



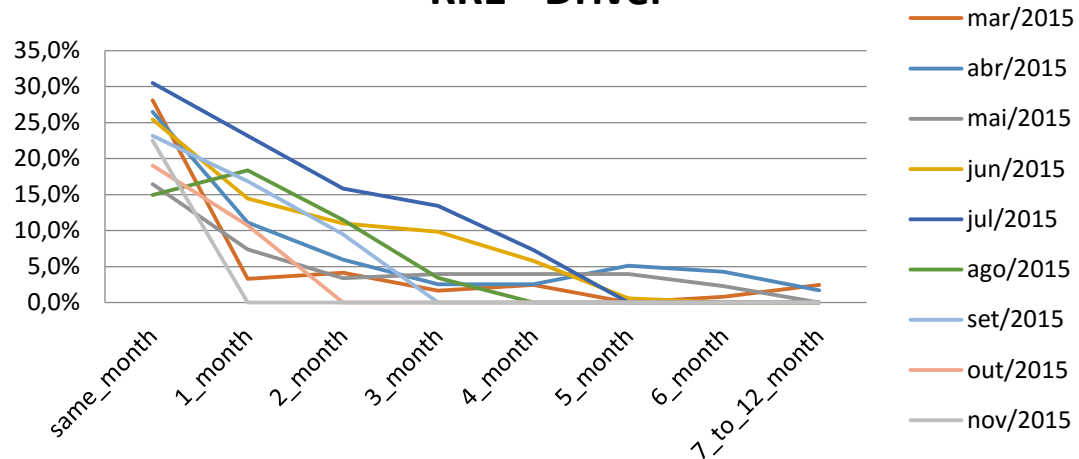
RR2 Accumulated - Pax



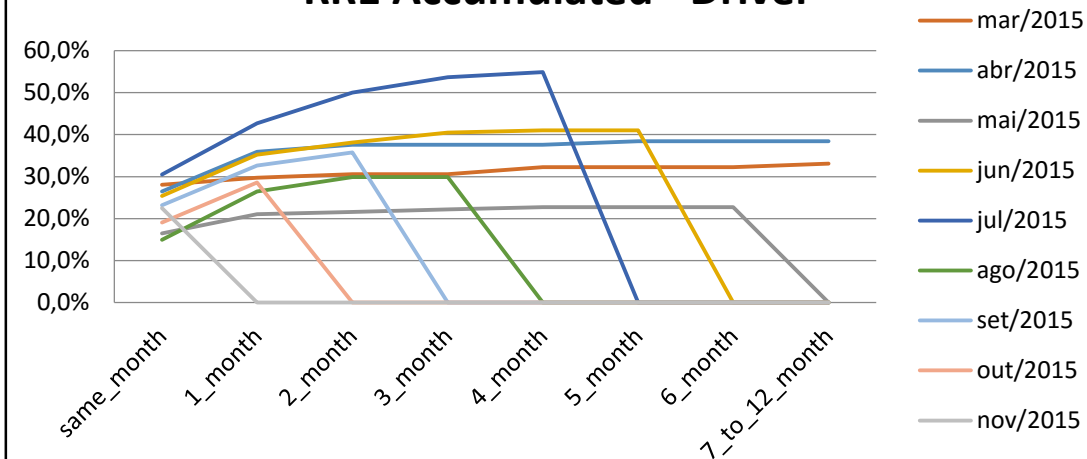


Argentina + Uruguay

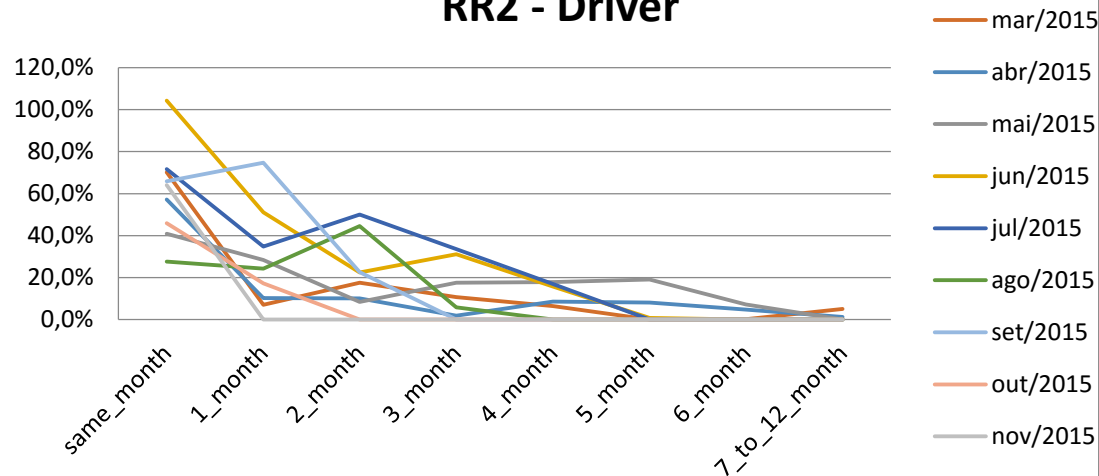
RR1 - Driver



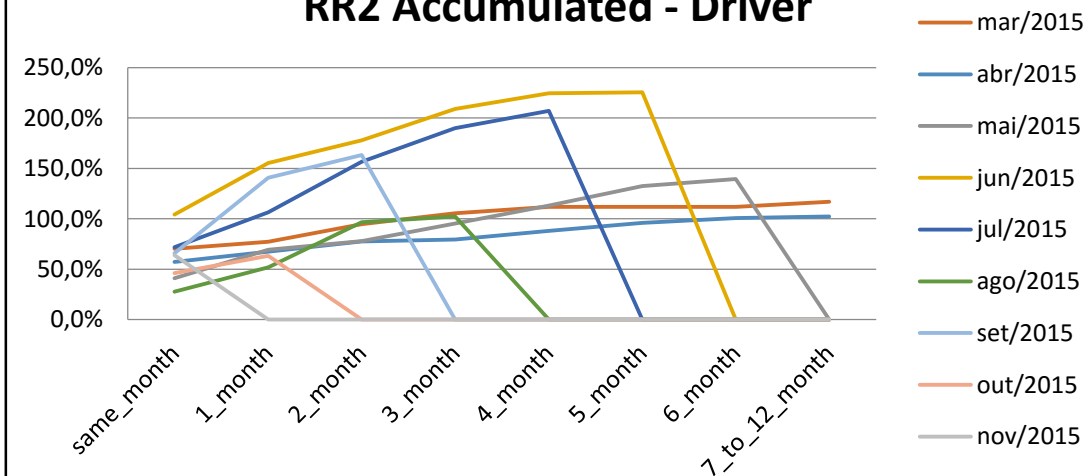
RR1 Accumulated - Driver



RR2 - Driver



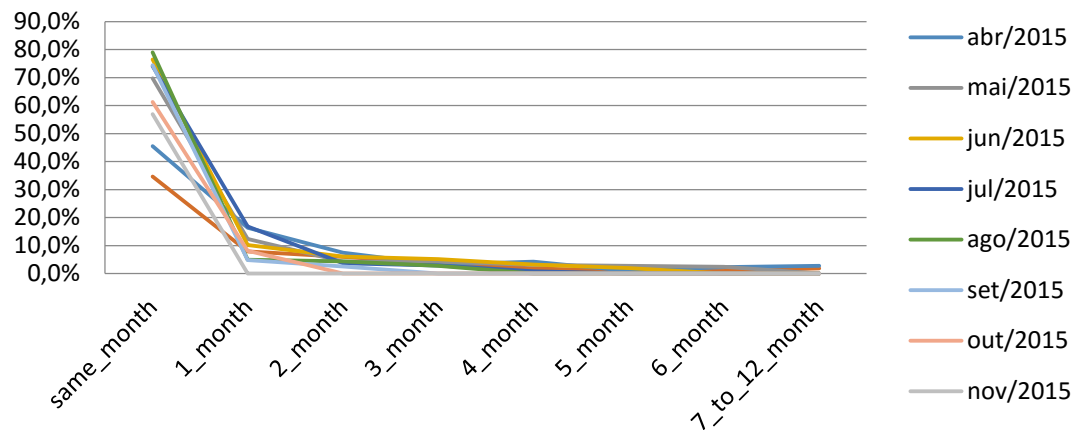
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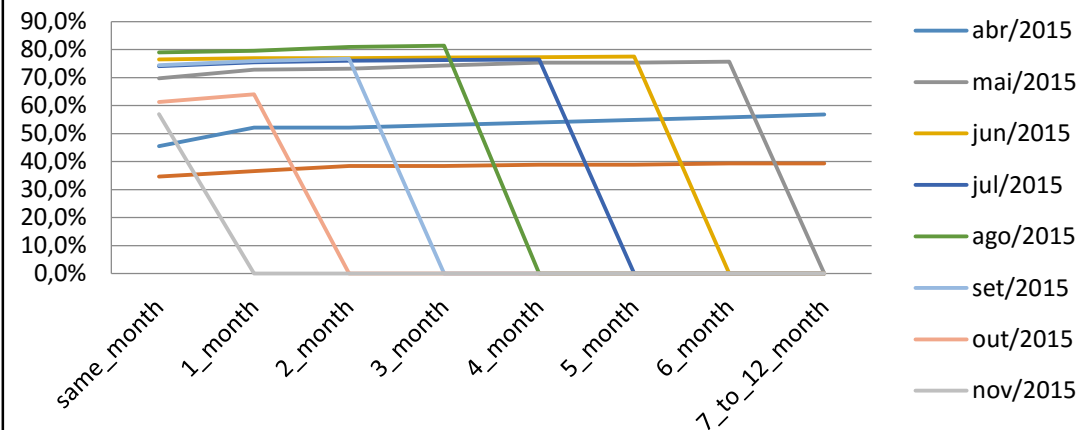


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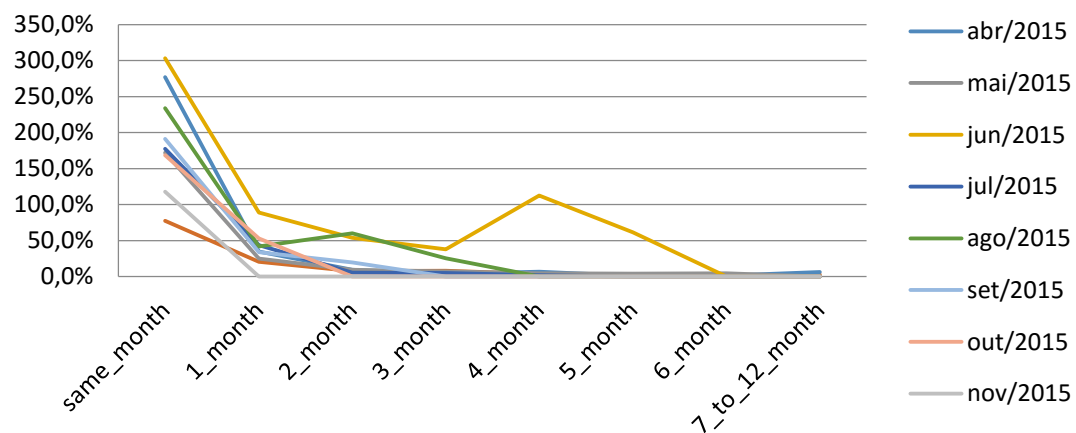
RR1 - Pax



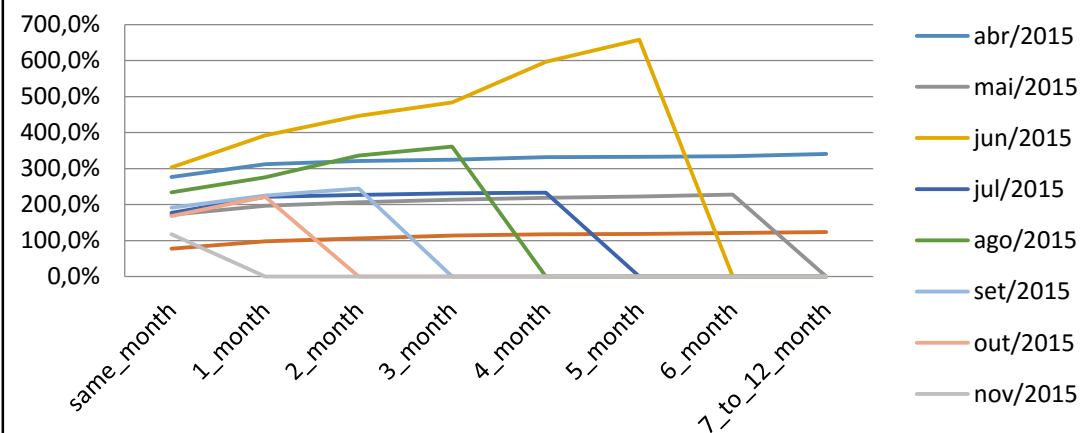
RR1 Accumulated - Pax



RR2 - Pax



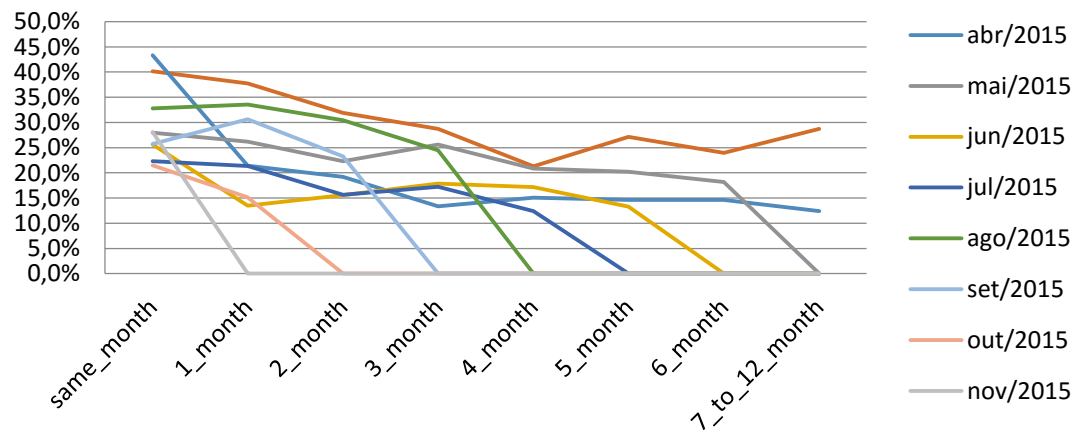
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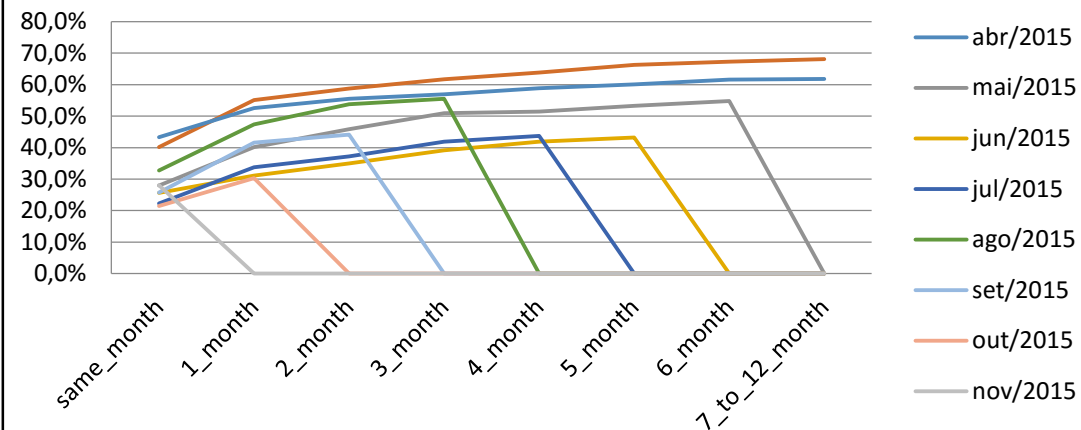


Brasil

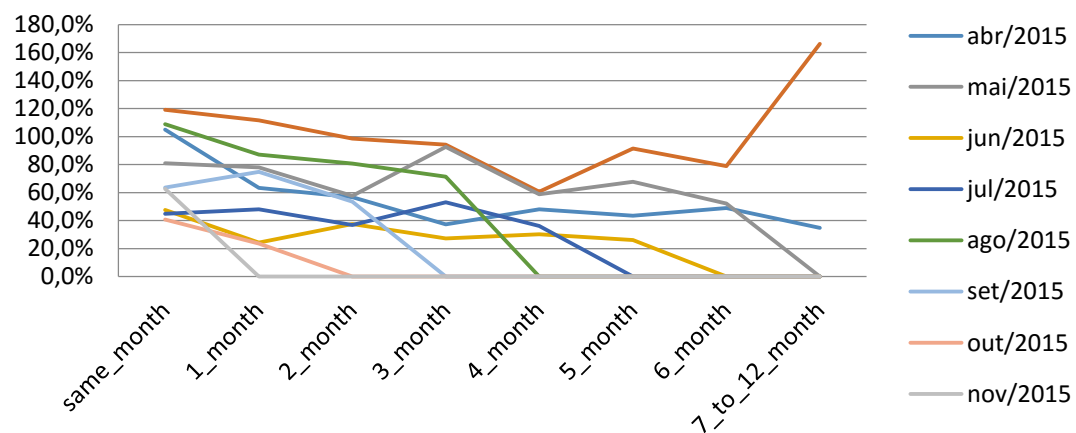
RR1 - Driver



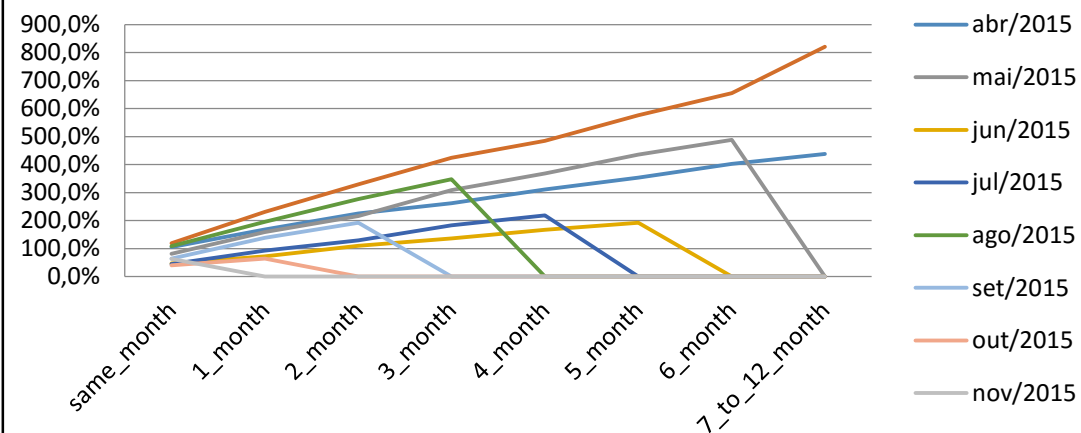
RR1 Accumulated - Driver



RR2 - Driver



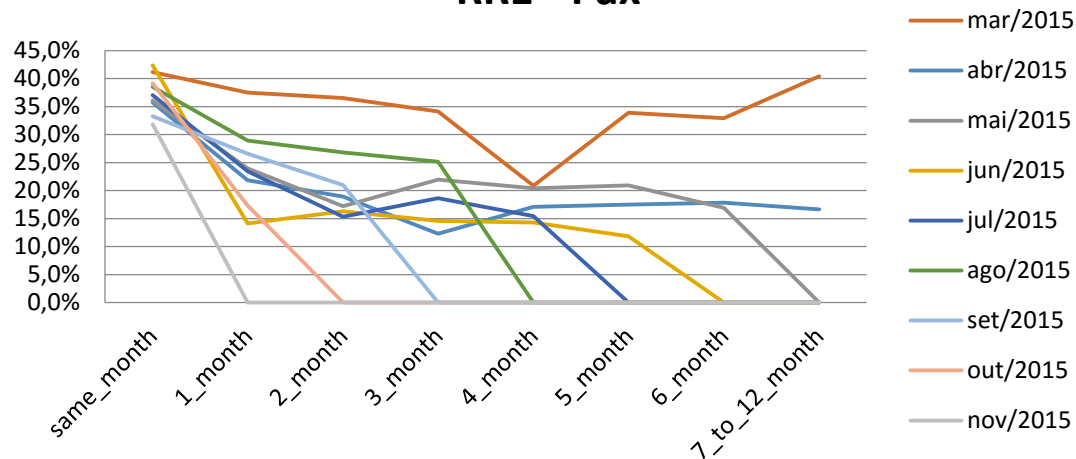
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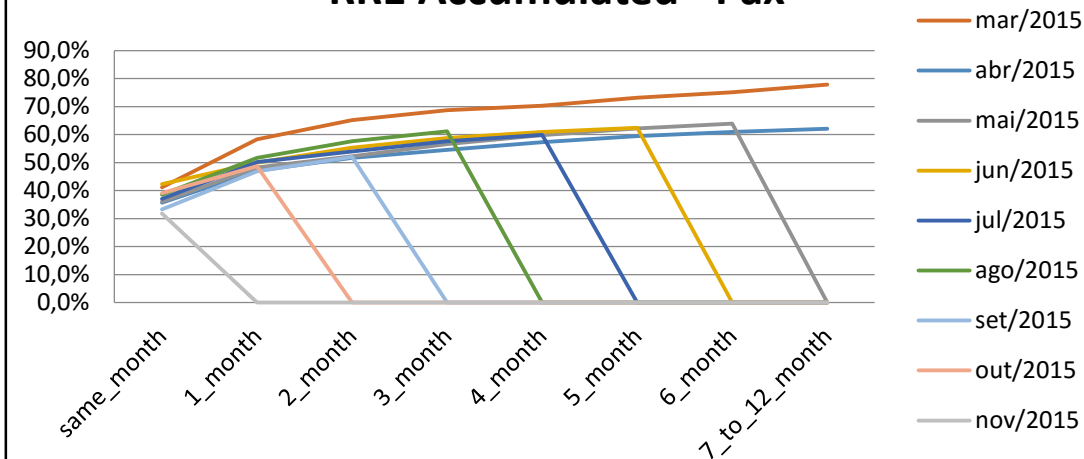


Brasil

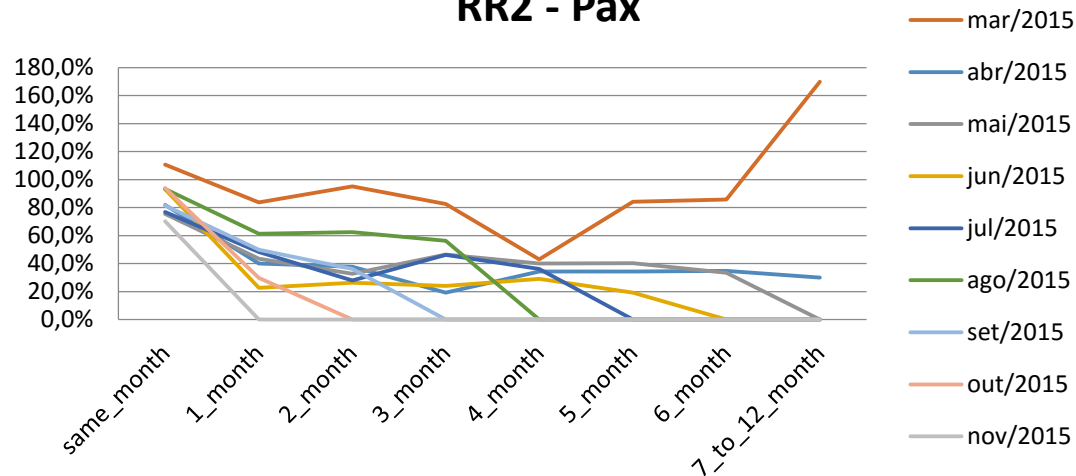
RR1 - Pax



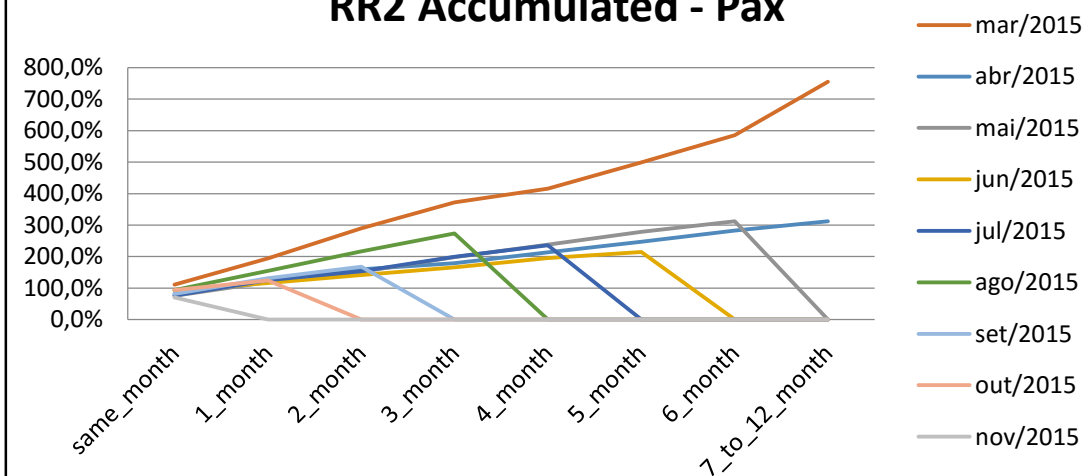
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RR2 - Pax



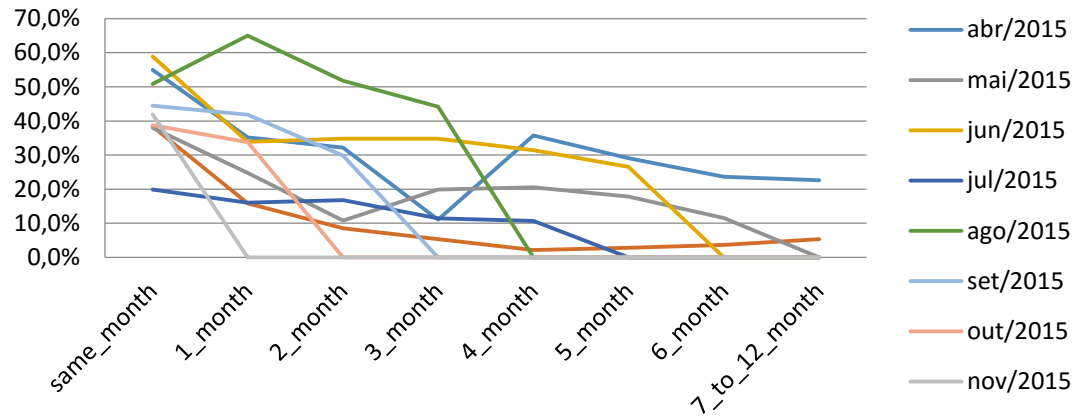
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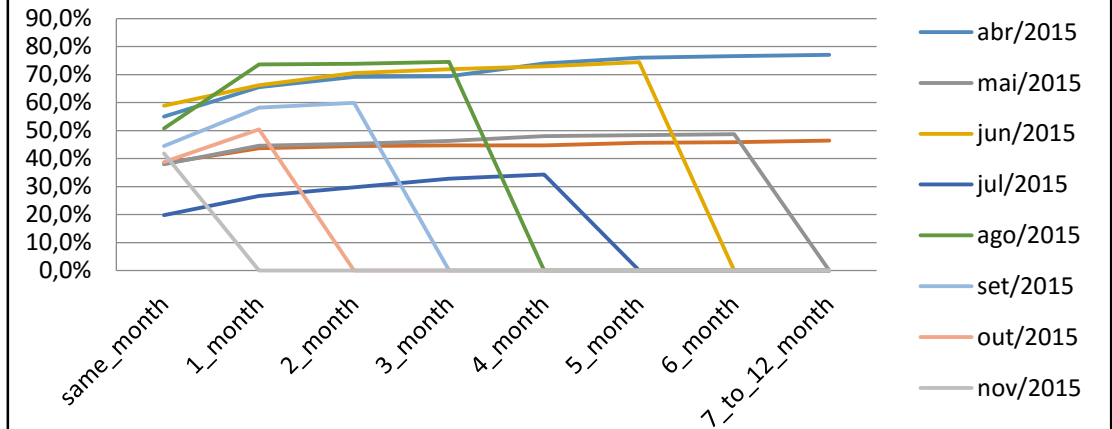


Chile

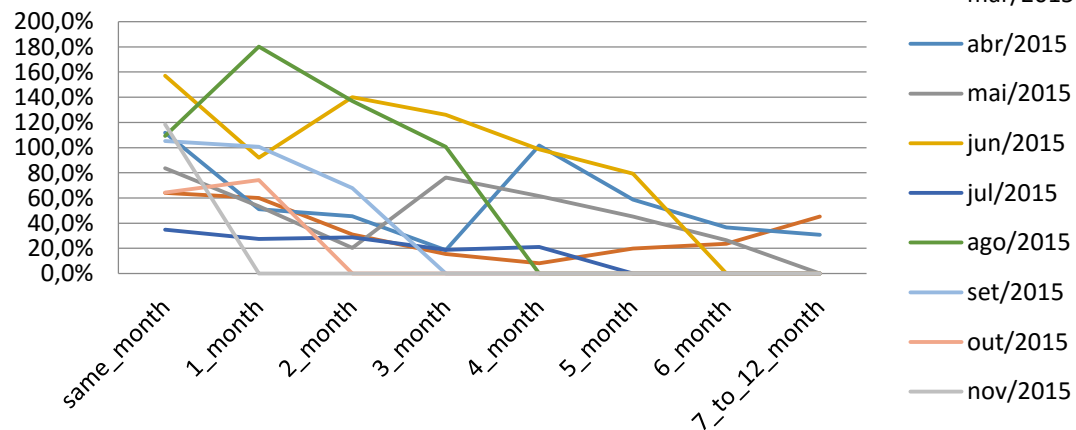
RR1 - Driver



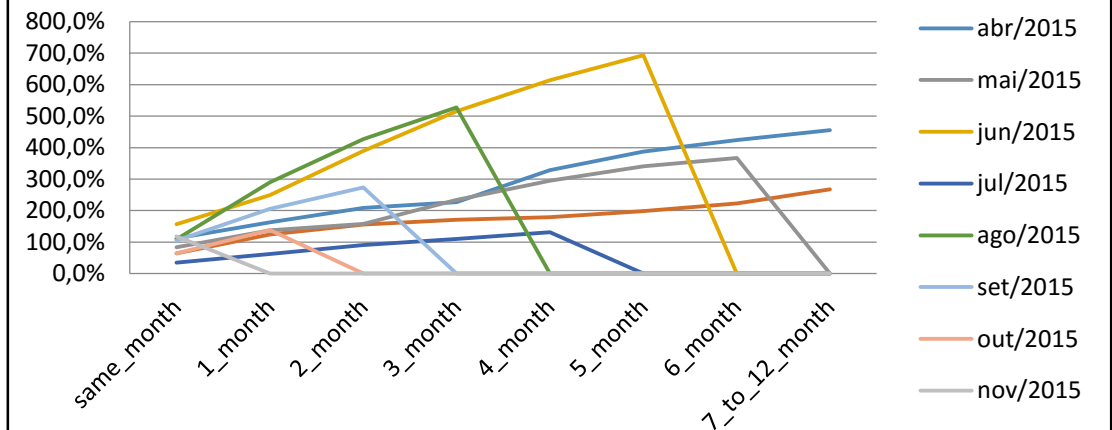
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RR2 - Driver



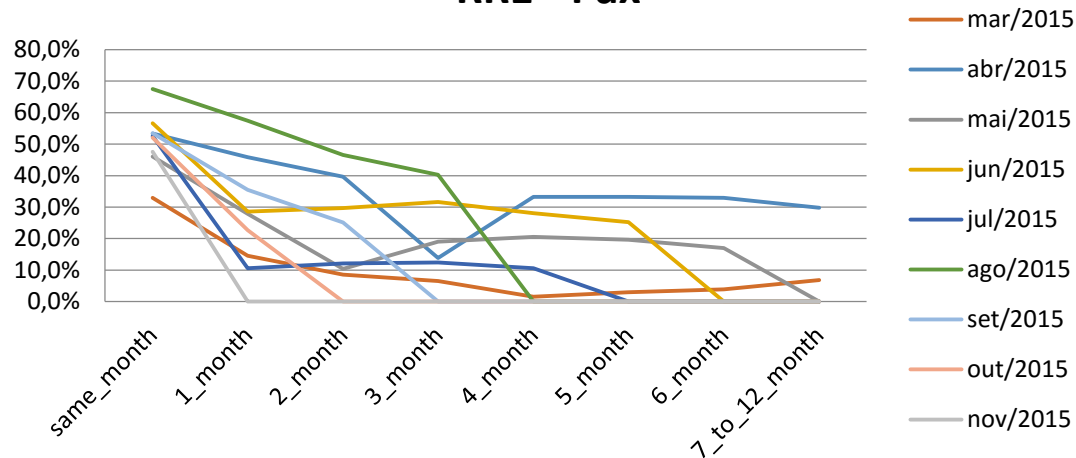
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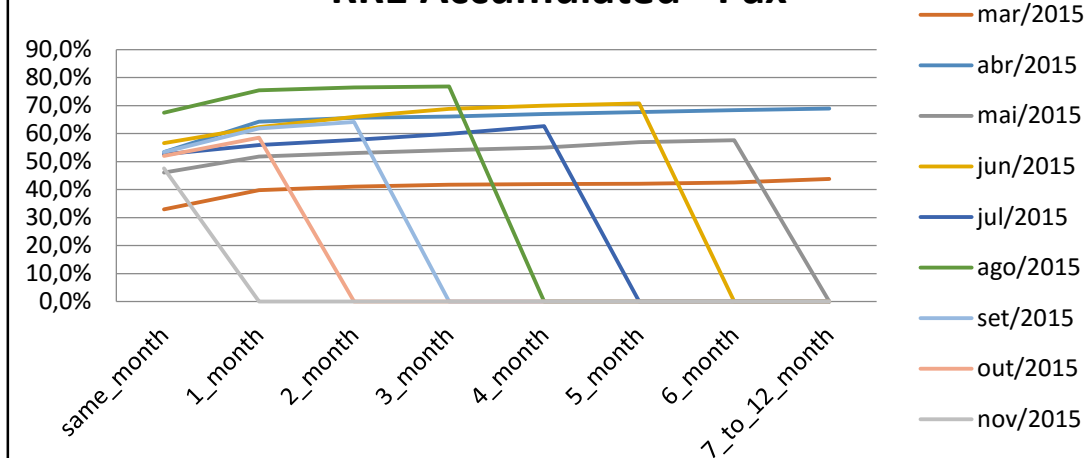


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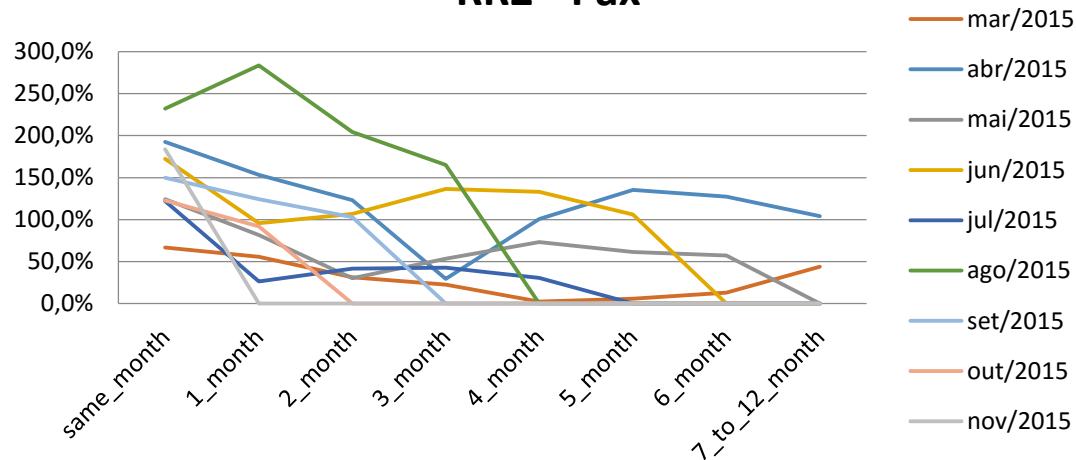
RR1 - Pax



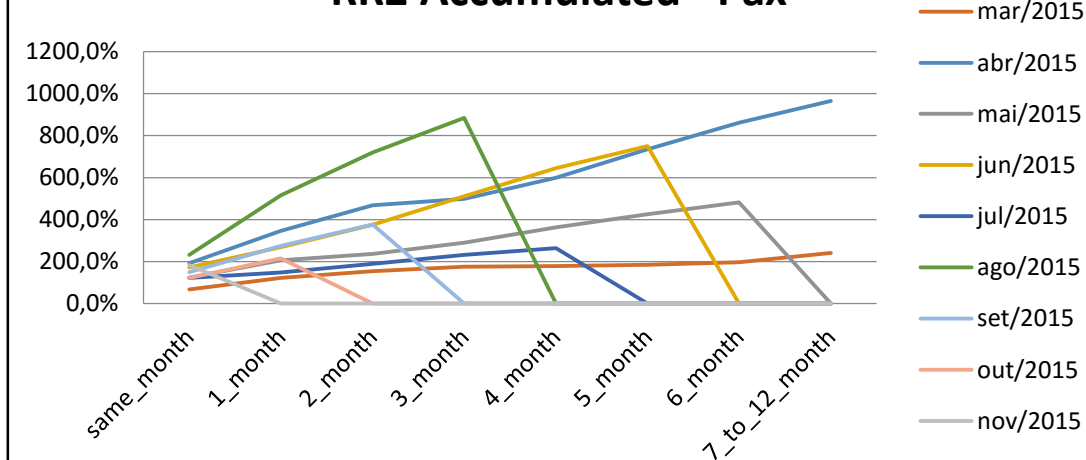
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RR2 - Pax



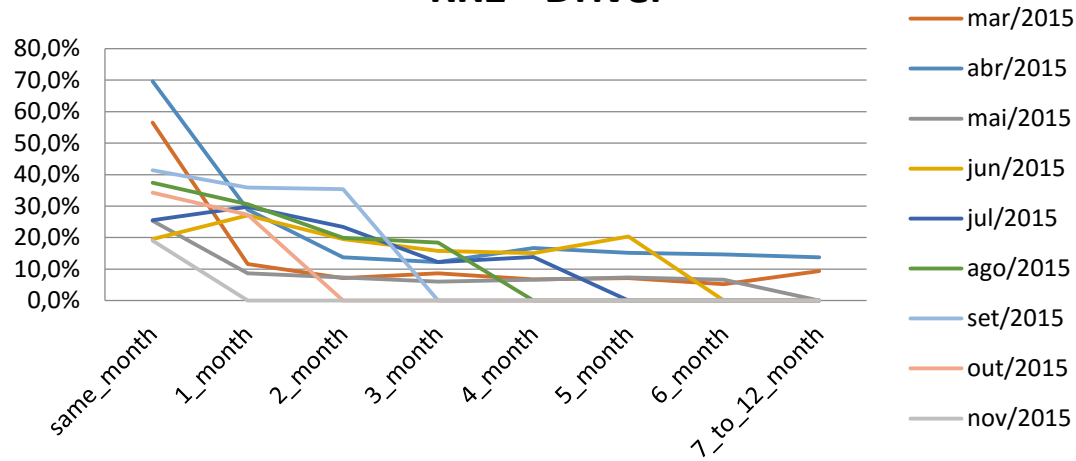
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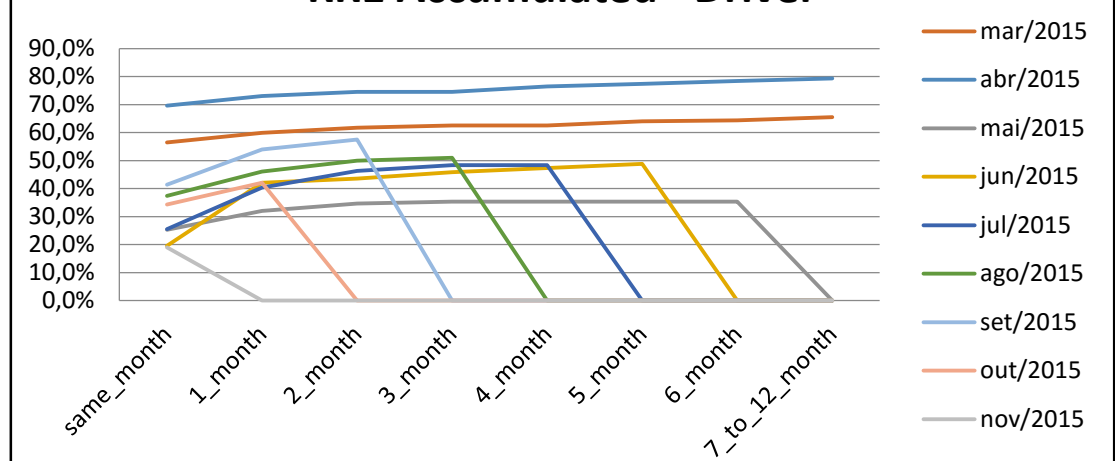


Colombia

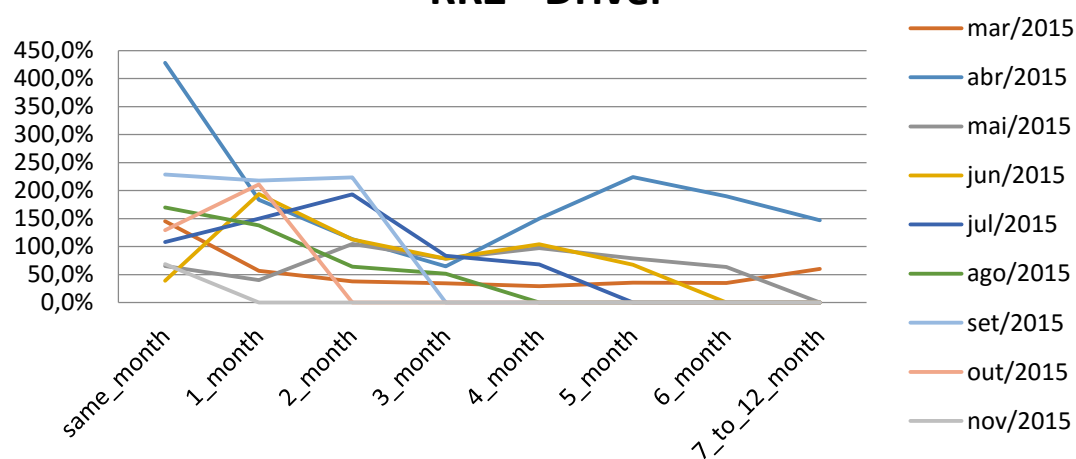
RR1 - Driver



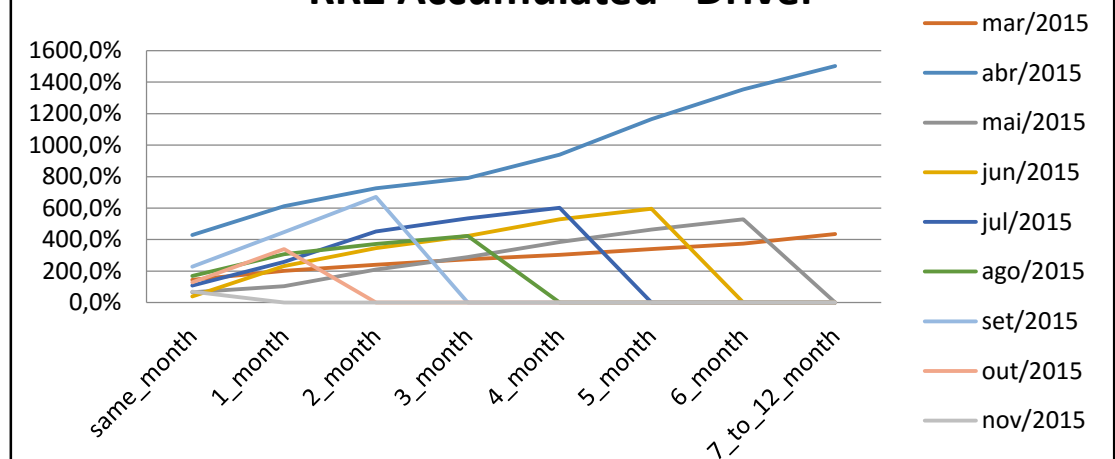
RR1 Accumulated - Driver



RR2 - Driver



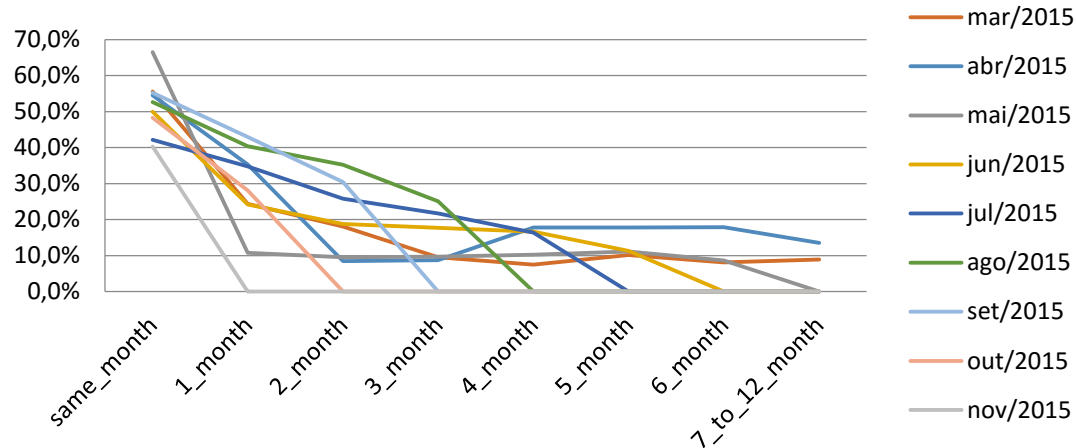
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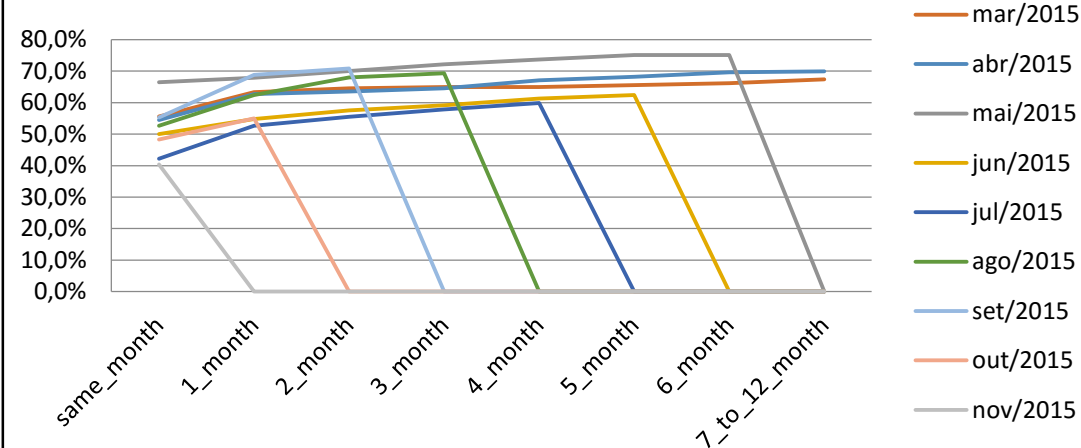


Colombia

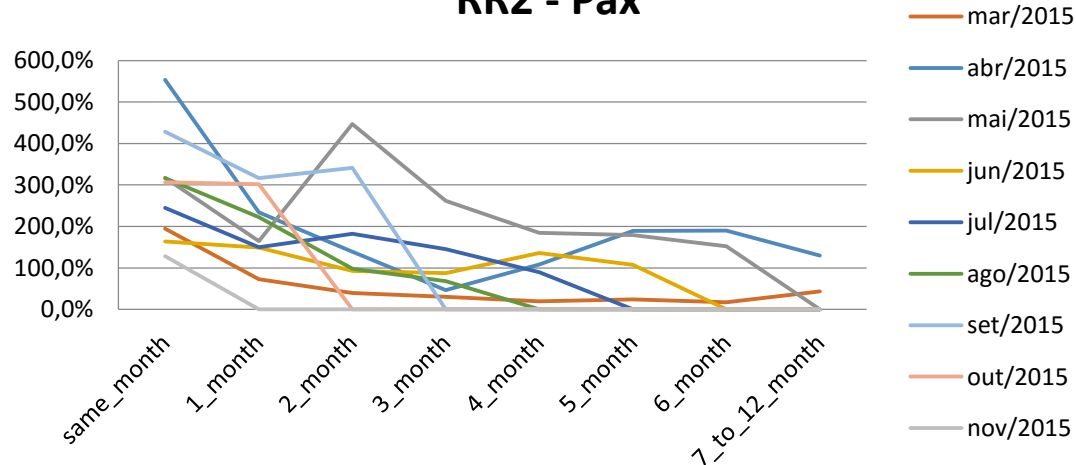
RR1 - Pax



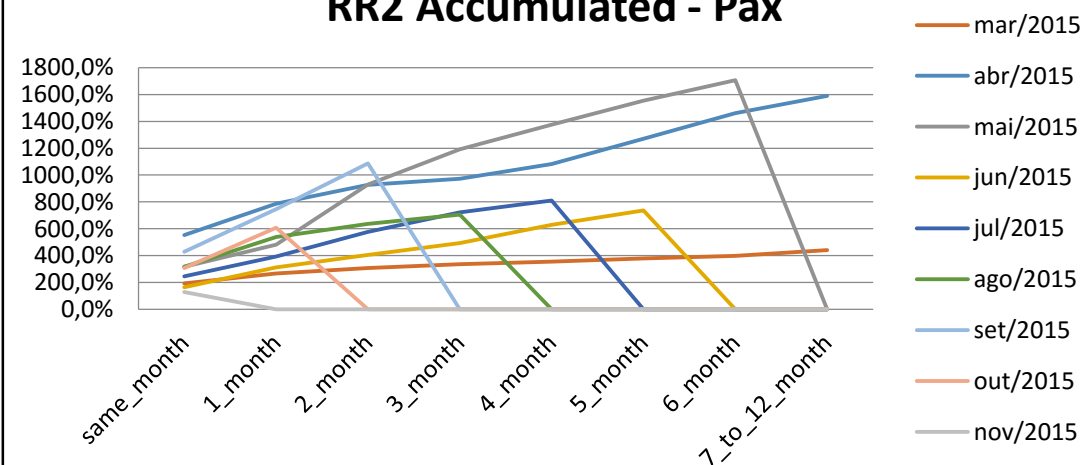
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RR2 - Pax



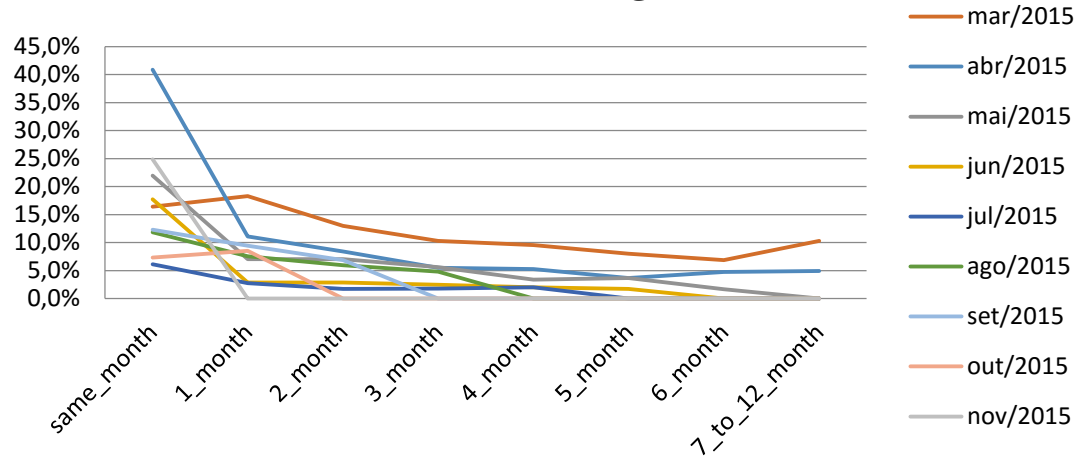
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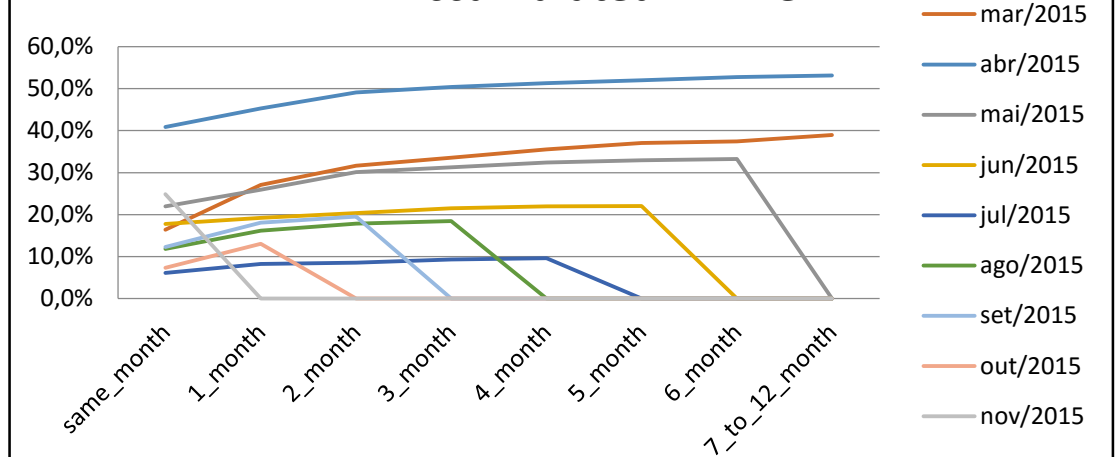


India

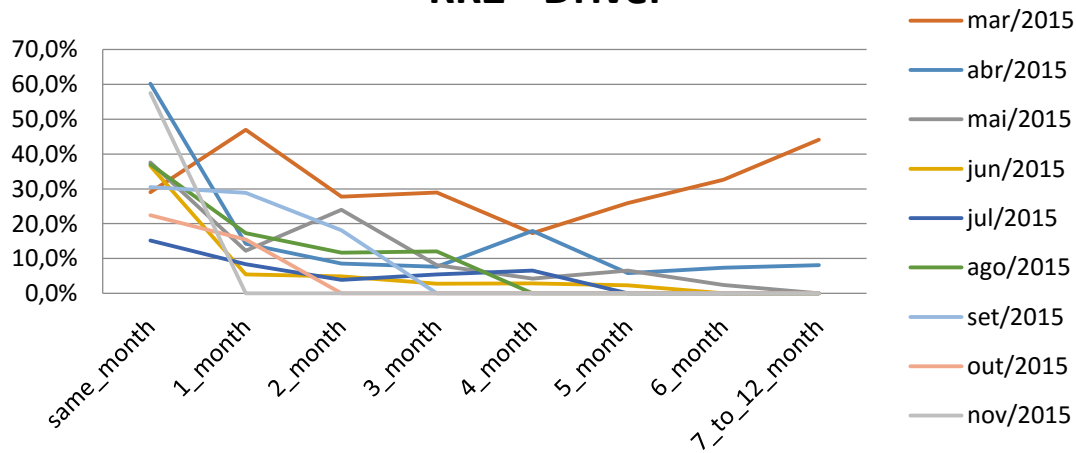
RR1 - Driver



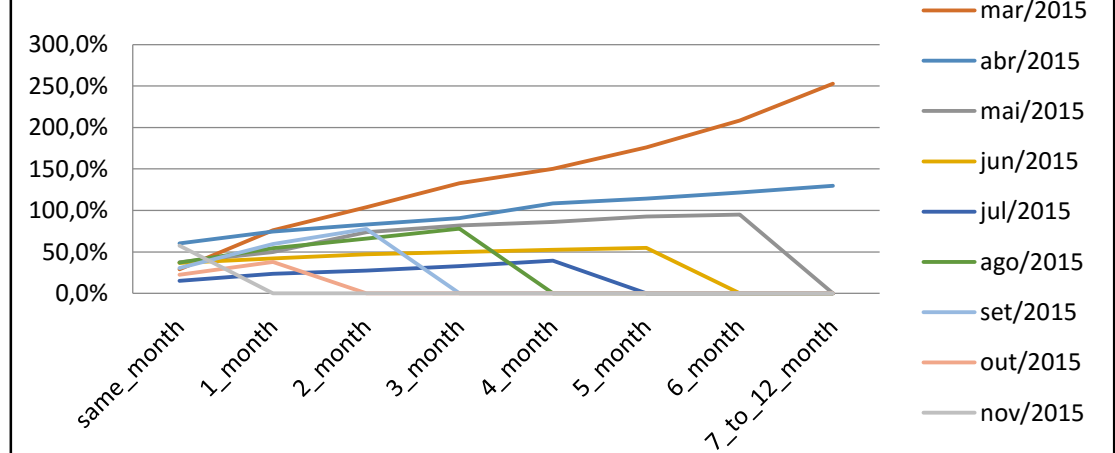
RR1 Accumulated - Driver



RR2 - Driver



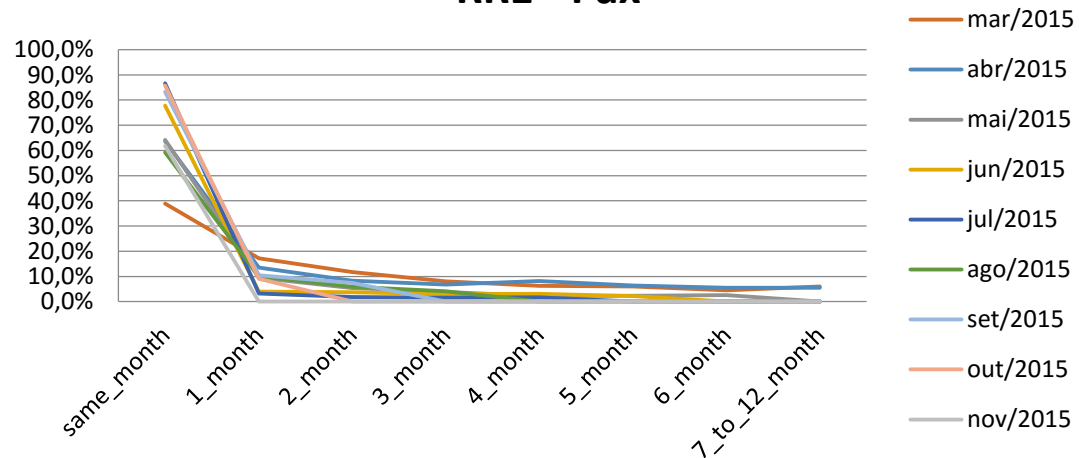
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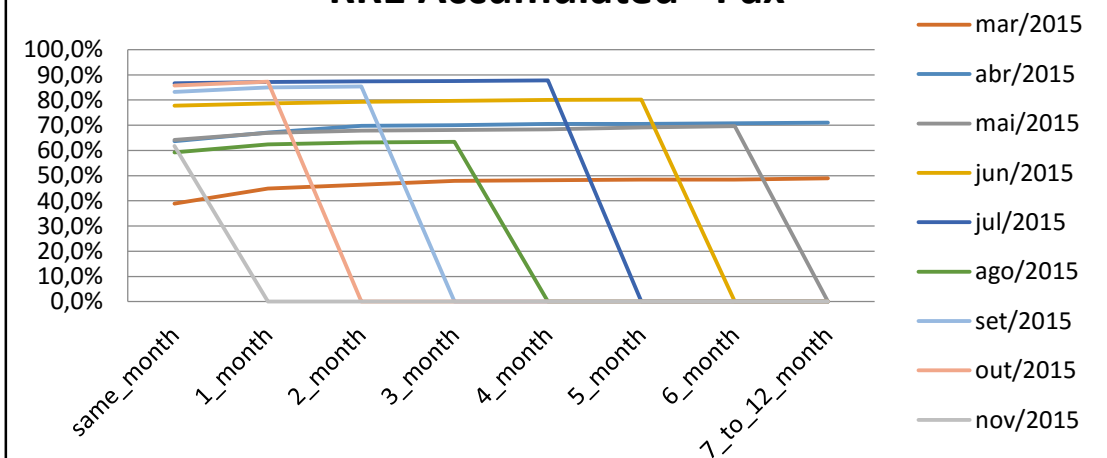


India

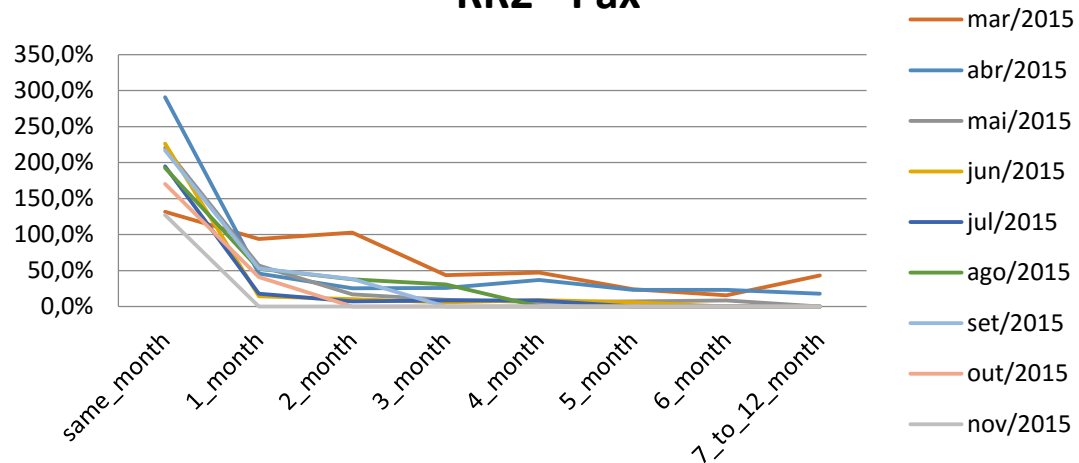
RR1 - Pax



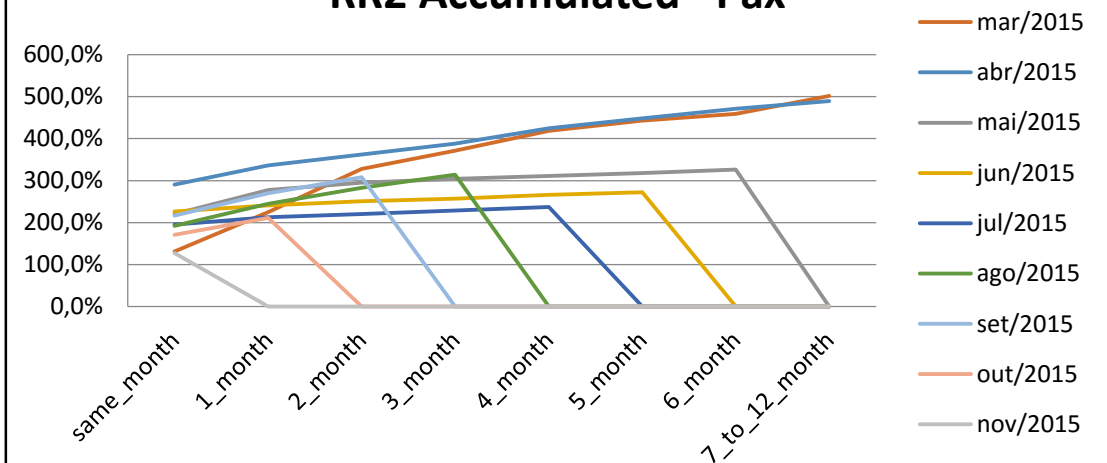
RR1 Accumulated - Pax



RR2 - Pax



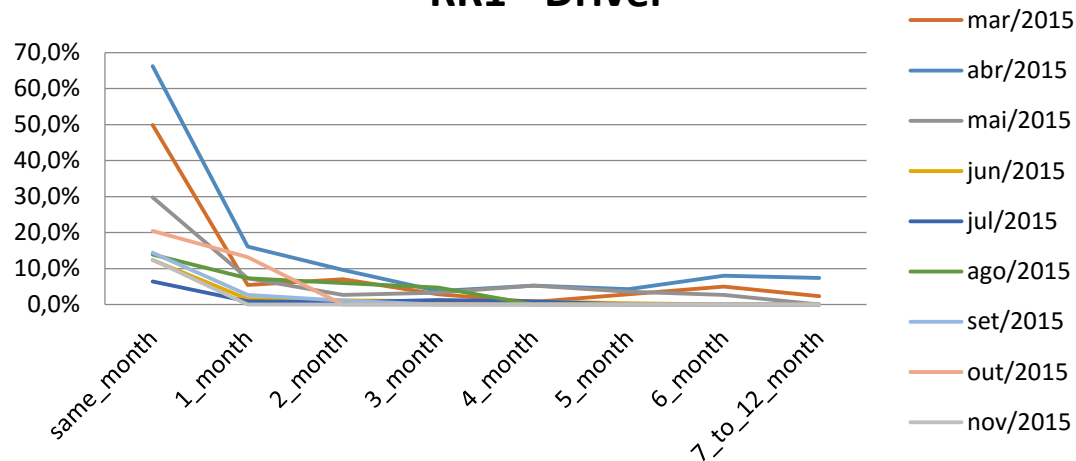
RR2 Accumulated - Pax



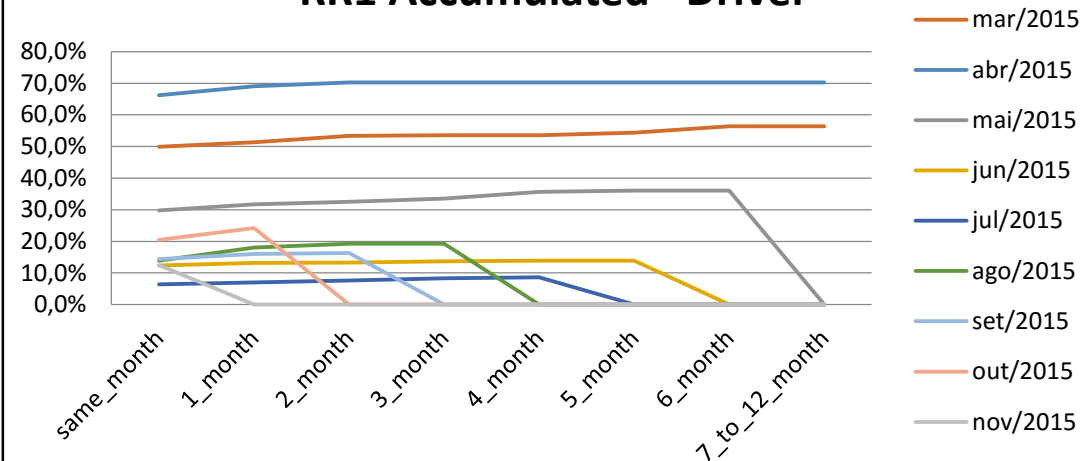


Malaysia + Singapore

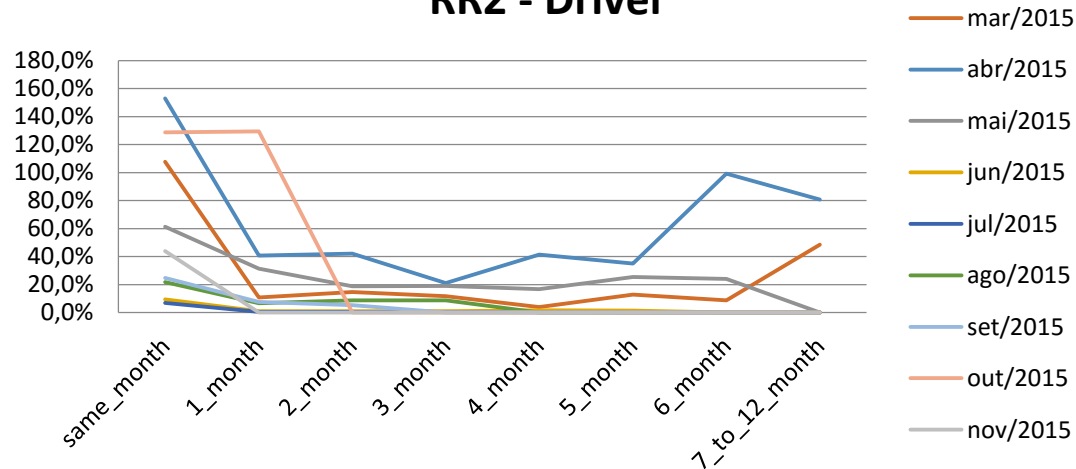
RR1 - Driver



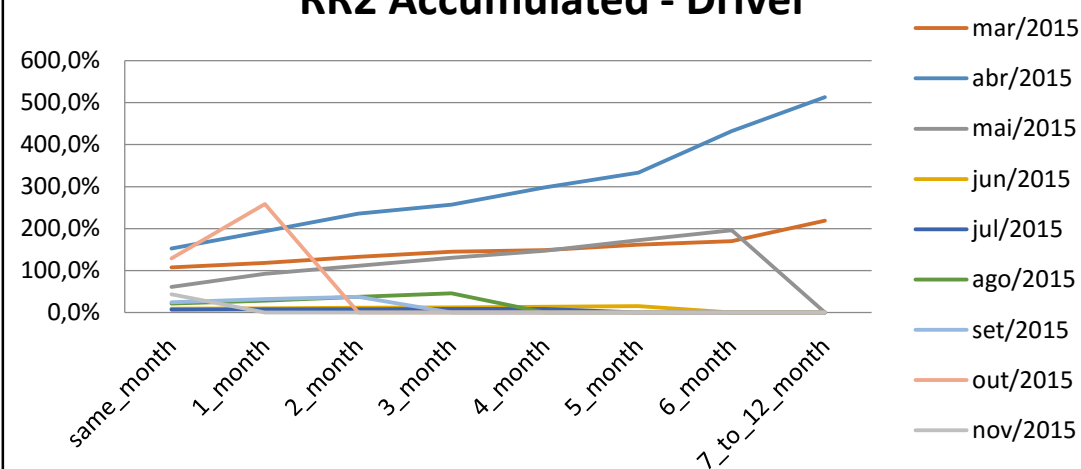
RR1 Accumulated - Driver



RR2 - Driver



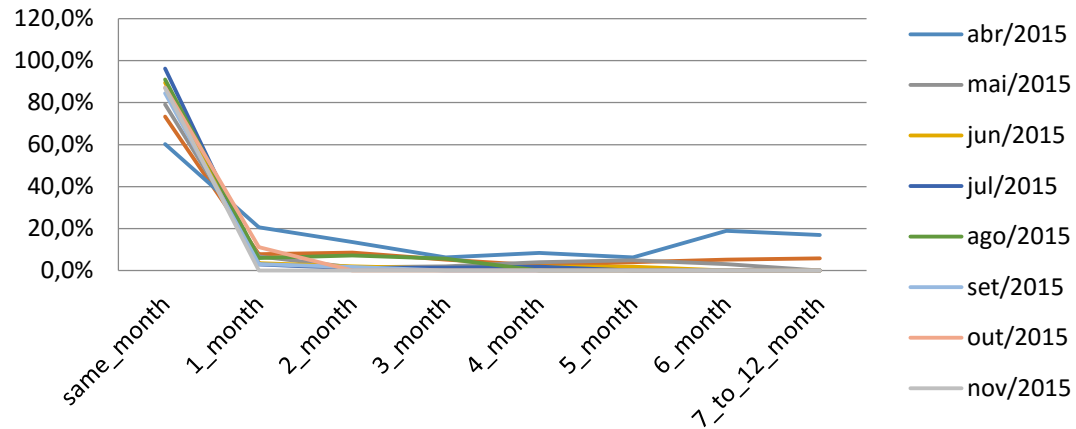
RR2 Accumulated - Driver



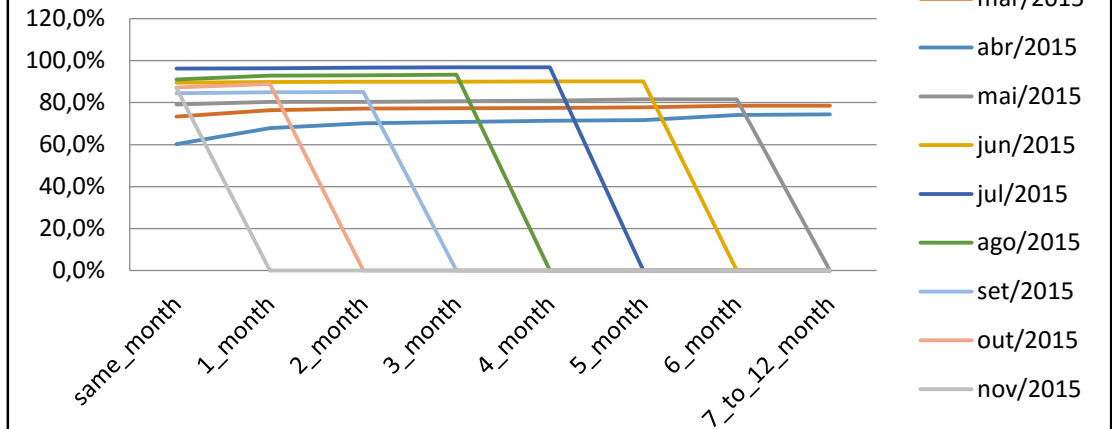


Malaysia + Singapore

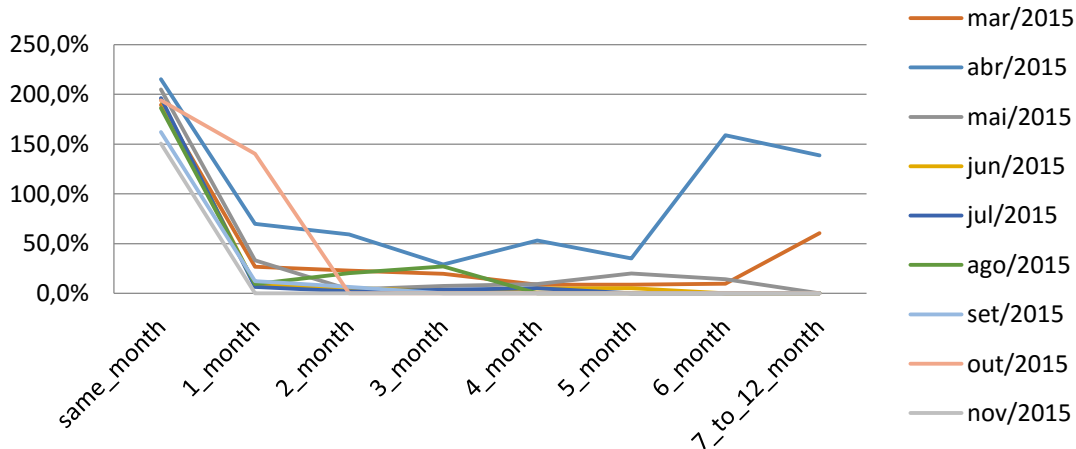
RR1 - Pax



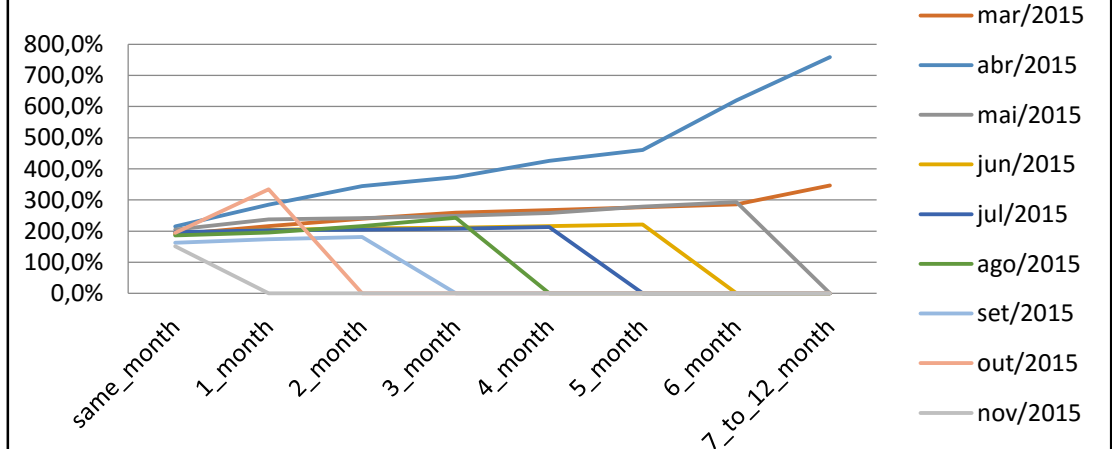
RR1 Accumulated - Pax



RR2 - Pax



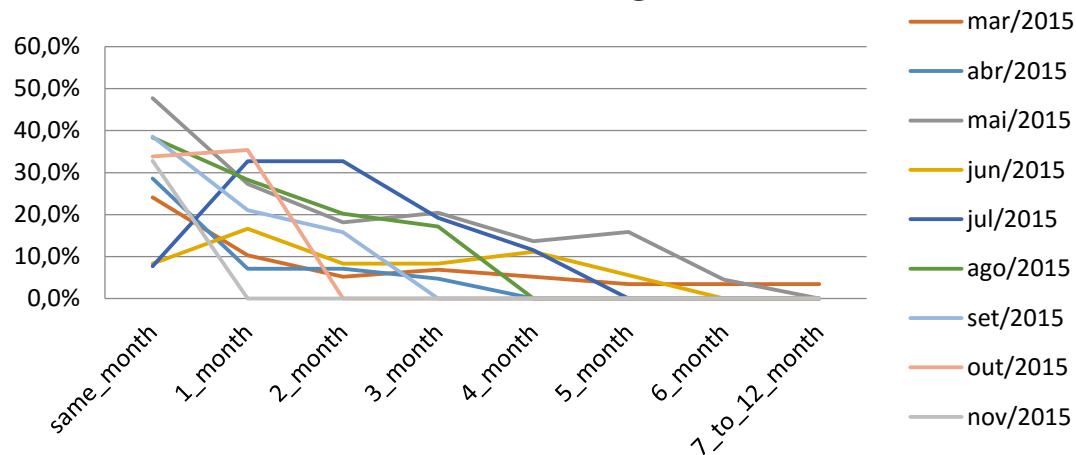
RR2 Accumulated - Pax



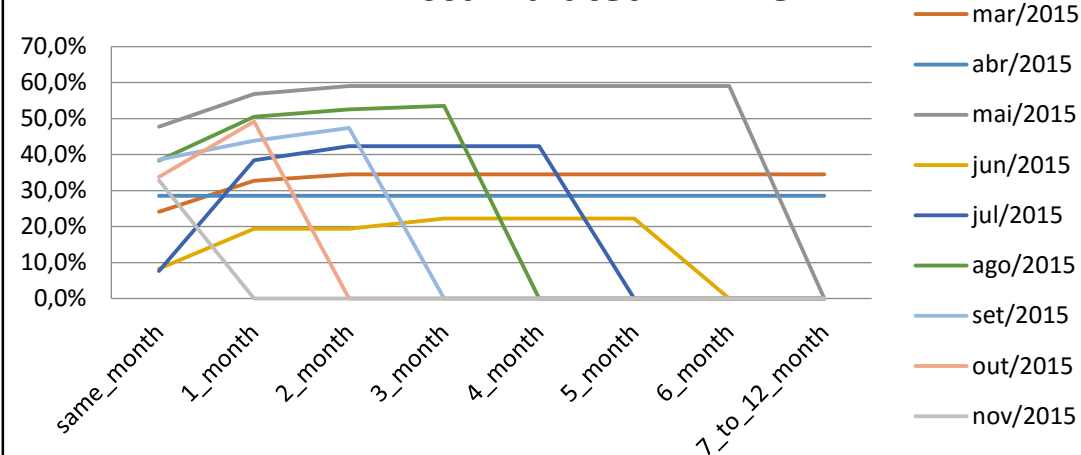


Mexico

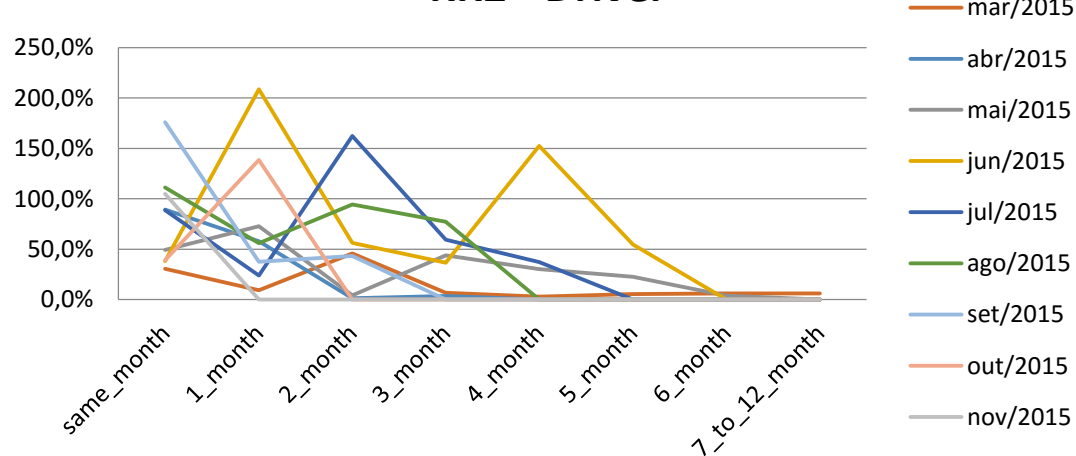
RR1 - Driver



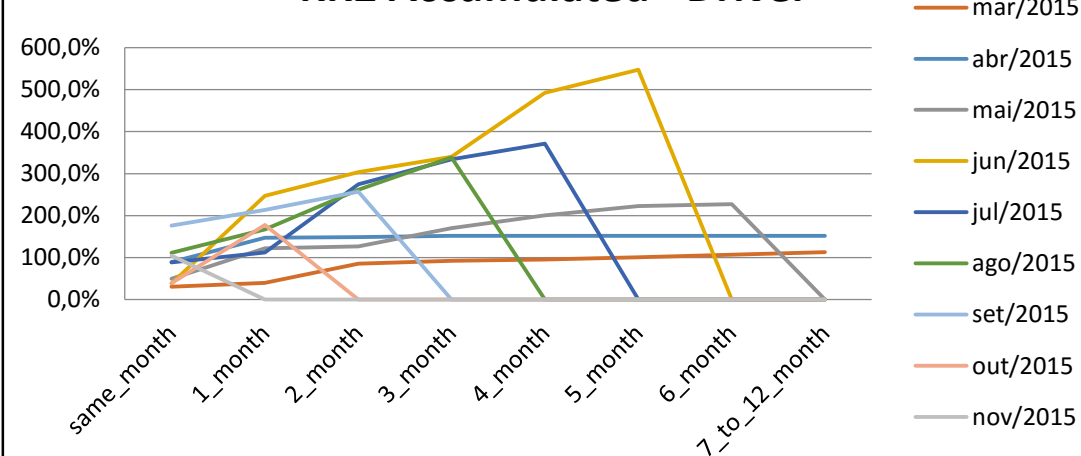
RR1 Accumulated - Driver



RR2 - Driver



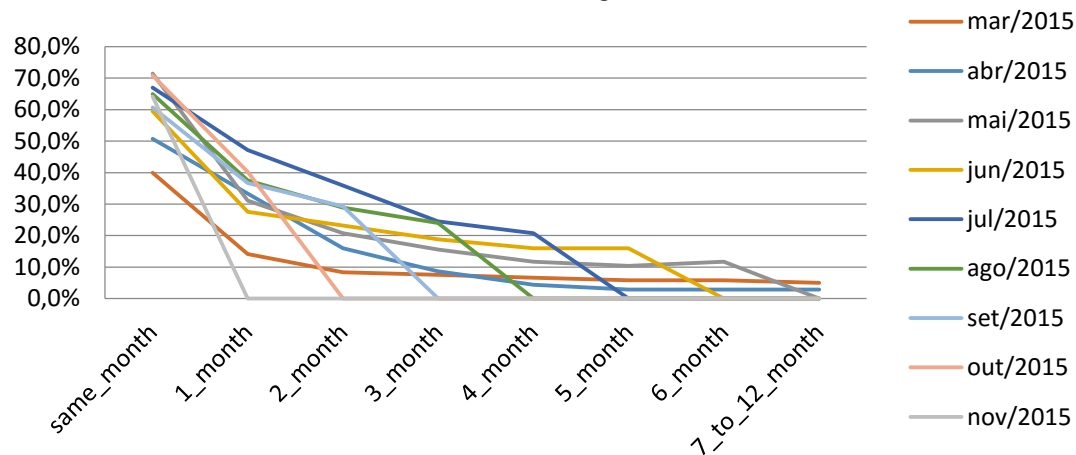
RR2 Accumulated - Driver



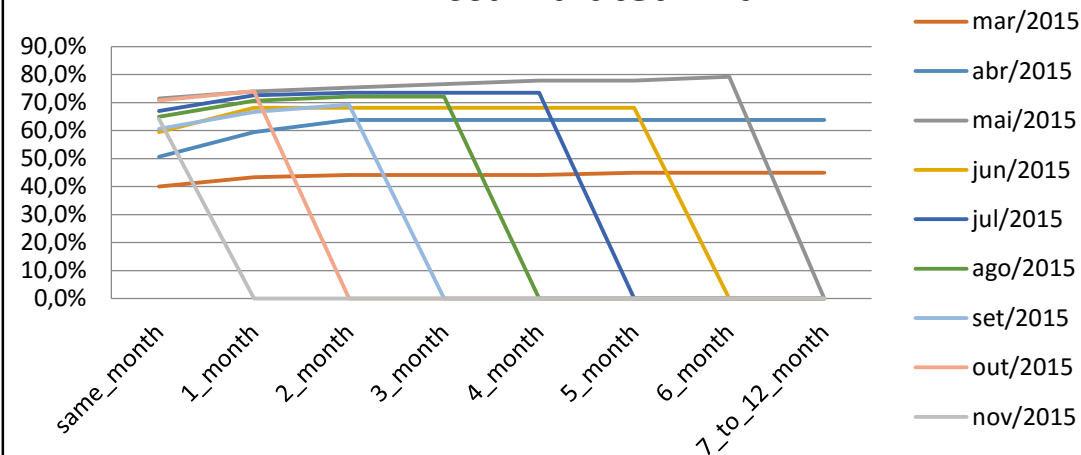


Mexico

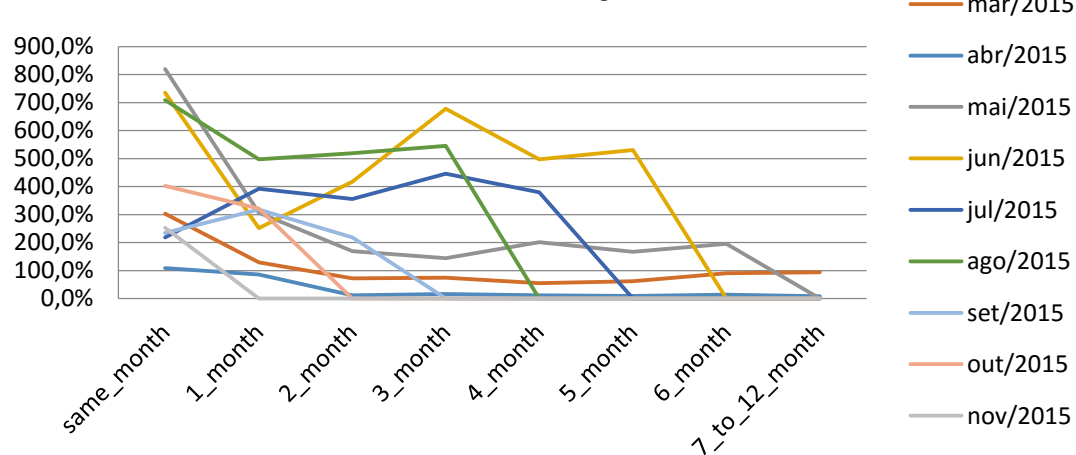
RR1 - Pax



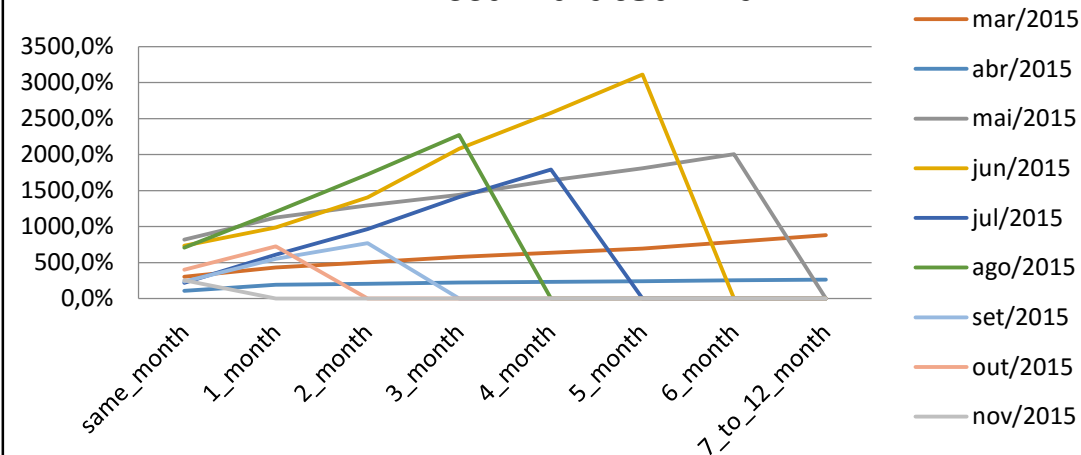
RR1 Accumulated - Pax



RR2 - Pax



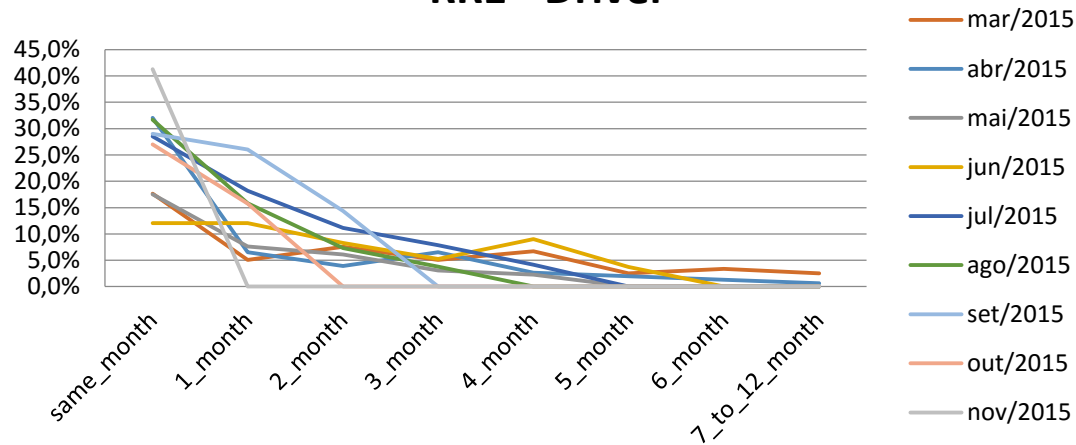
RR2 Accumulated - Pax



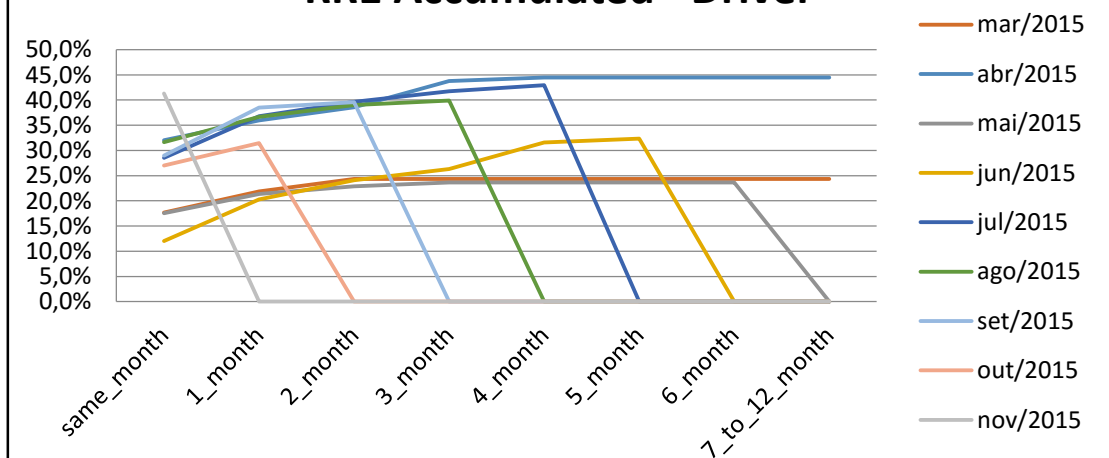


Pakistan

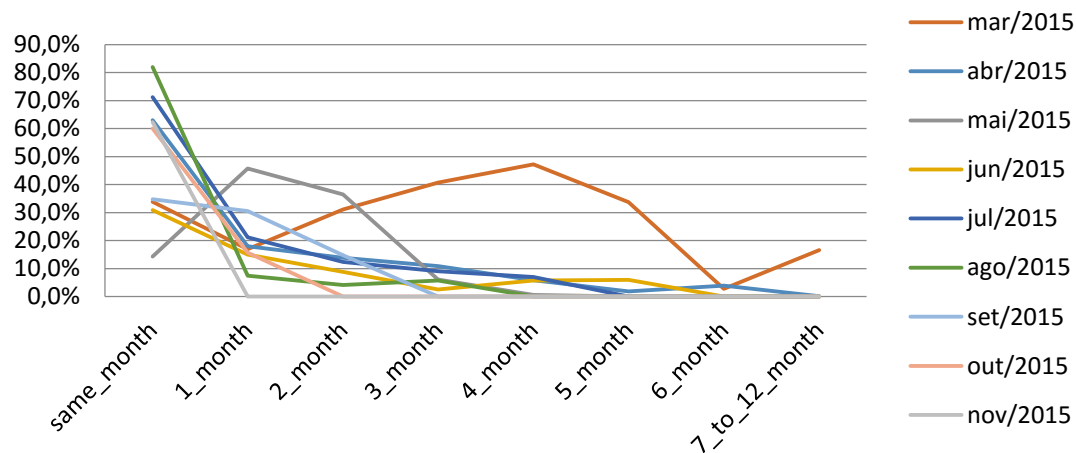
RR1 - Driver



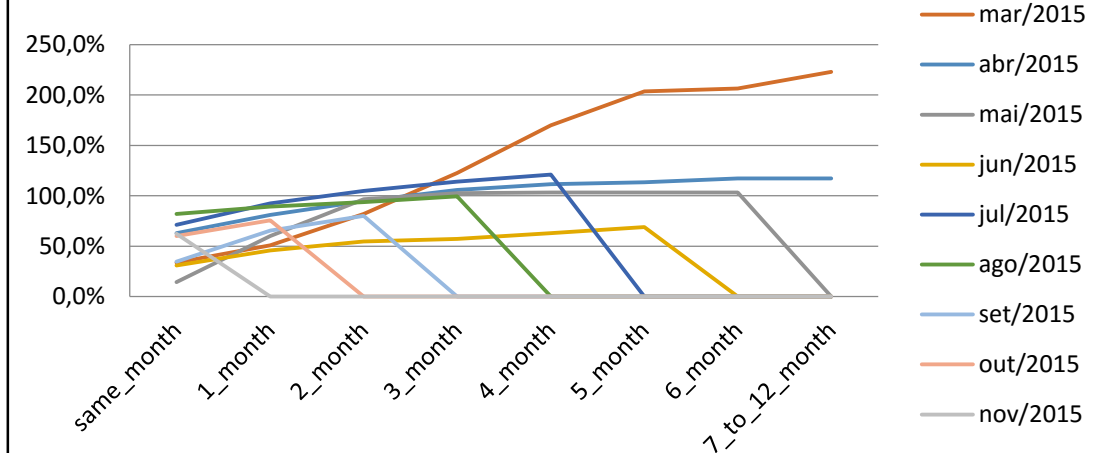
RR1 Accumulated - Driver



RR2 - Driver



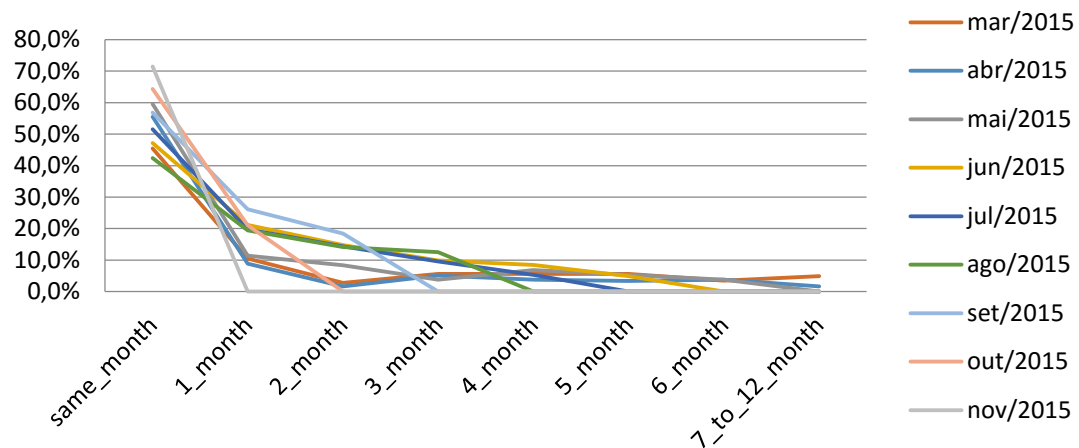
RR2 Accumulated - Driver



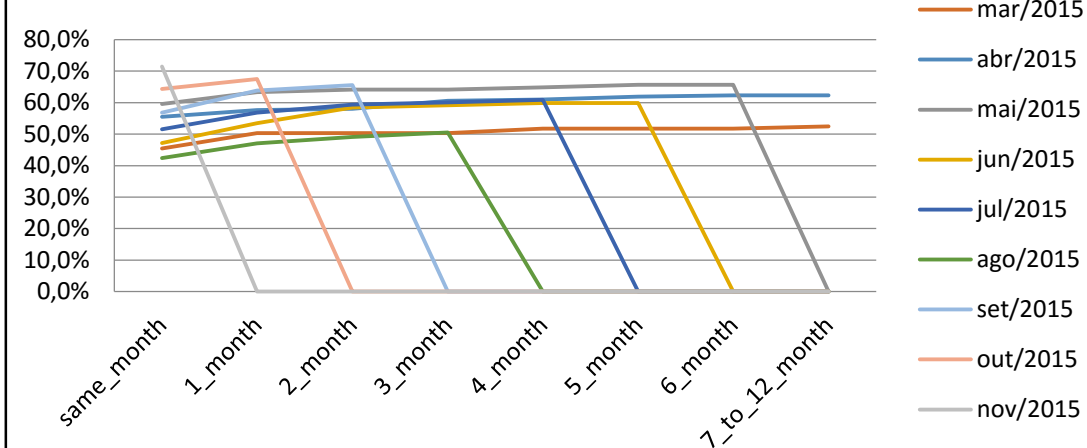


Pakistan

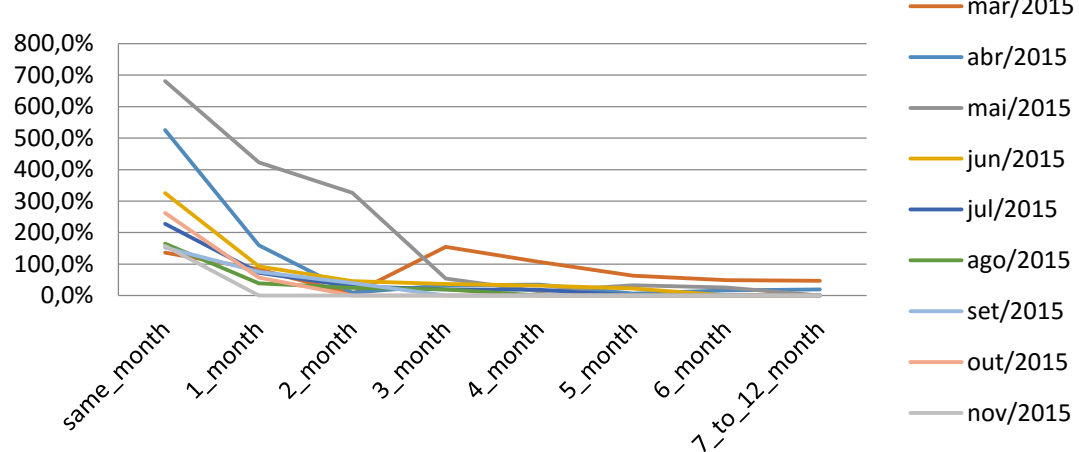
RR1 - Pax



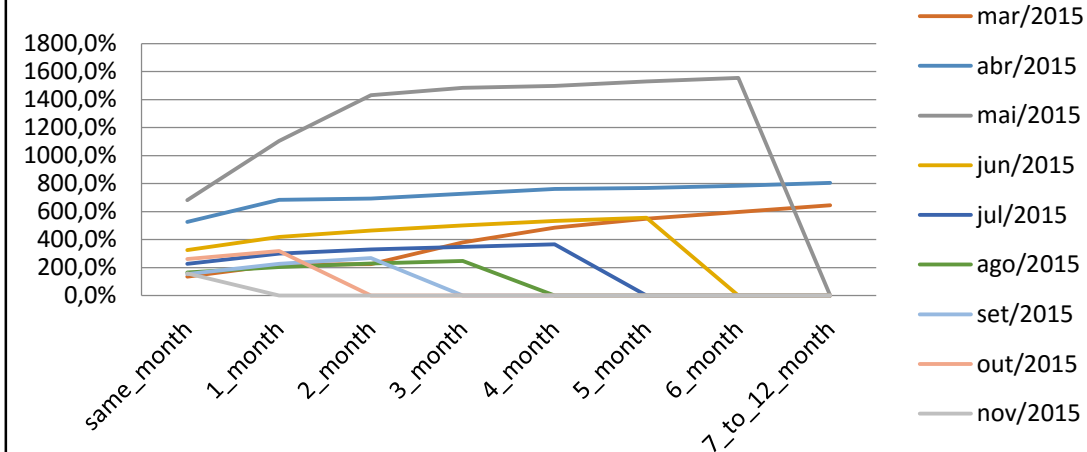
RR1 Accumulated - Pax



RR2 - Pax



RR2 Accumulated - Pax





tripda



Social



Economical



Green



Secure



Convenient



Private and Confidential