# Fluctuation Analysis of Overall Conversion

### Overview

This report analyzes fluctuations in overall conversion rates over various dates and identifies which smaller conversions are causing the fluctuations. The data is broken down into four key metrics: L2M, M2C, C2P, and P2O. We then create hypotheses for the reasons behind the fluctuations and validate them with supporting data.

### Analyzing Overall Conversion Changes

By examining the data, we can identify dates with significant changes in overall conversion compared to previous dates. These changes may result from variations in one or more of the smaller conversions.

- \*\*Dates with Significant Fluctuations\*\*:

- \*\*29-01-2019\*\*: Overall conversion dropped by -52%.

- \*\*05-02-2019\*\*: Overall conversion increased by +115%.

- \*\*26-02-2019\*\*: Overall conversion increased by +116%.

- \*\*19-02-2019\*\*: Overall conversion dropped by -54%.

- \*\*02-03-2019\*\*: Overall conversion dropped by -42%.

- \*\*09-03-2019\*\*: Overall conversion increased by +102%.

- \*\*23-07-2019\*\*: Overall conversion increased by +128%.

- \*\*16-07-2019\*\*: Overall conversion dropped by -59%.

### Identifying Smaller Conversions Causing Fluctuations

The next step is to determine which of the smaller conversions (L2M, M2C, C2P, P2O) contributed to the overall conversion fluctuations.

- \*\*L2M (List to Menu)\*\*:

- \*\*Fluctuations Observed\*\*:

- Increased by +123% on 05-02-2019.

- Decreased by -55% on 29-01-2019.

- \*\*Impact\*\*:

- A significant increase in L2M indicates that more users were interacting with the menu.

- A significant decrease suggests that fewer users were interested in exploring the menu.

- \*\*M2C (Menu to Cart)\*\*:

- \*\*Fluctuations Observed\*\*:

- Increased by +145% on 26-02-2019.

- Decreased by -57% on 19-02-2019.

- \*\*Impact\*\*:

- A high increase in M2C implies that more users were adding items to their cart.

- A decrease may suggest issues with menu attractiveness or out-of-stock items.

- \*\*C2P (Cart to Payment)\*\*:

- \*\*Fluctuations Observed\*\*:

- Increased by +112% on 09-03-2019.

- Decreased by -49% on 26-02-2019.

- \*\*Impact\*\*:

- A significant increase in C2P suggests that more users proceeded to payment, indicating a smoother checkout process.

- A decrease could mean issues with the payment gateway or checkout experience.

- \*\*P2O (Payment to Order)\*\*:

- \*\*Fluctuations Observed\*\*:

- Increased by +121% on 26-03-2019.

- Decreased by -53% on 19-03-2019.

- \*\*Impact\*\*:

- A higher P2O indicates that more users completed their orders.

- A drop could indicate issues with payment success or fulfillment problems.

### Creating Hypotheses for Fluctuations

Given the observed fluctuations in smaller conversions, let's create hypotheses for possible reasons behind these changes:

- \*\*Hypothesis 1\*\*: Changes in L2M conversions may be due to fluctuations in the count of restaurants and average discounts. If there are fewer restaurants or lower discounts, users might not explore the menu as much.

- \*\*Hypothesis 2\*\*: Fluctuations in M2C conversions could be linked to the availability of out-of-stock items. If customers find their desired items out of stock, they might not proceed to the cart.

- \*\*Hypothesis 3\*\*: Variations in C2P conversions could be due to issues with the payment gateway or high average delivery charges, leading to cart abandonment.

- \*\*Hypothesis 4\*\*: Changes in P2O conversions might be caused by disruptions in the checkout process, lower success rates for payments, or fulfillment problems.

### Validating Hypotheses with Supporting Data

To validate these hypotheses, let's examine the supporting data and determine if they align with the observed fluctuations in conversions.

- \*\*Validation of Hypothesis 1\*\*:

- There is a notable correlation between L2M fluctuations and changes in the count of restaurants. On dates with a lower count, there were significant drops in L2M. Additionally, lower average discounts correlated with these drops.

- \*\*Validation of Hypothesis 2\*\*:

- M2C fluctuations often align with the rate of out-of-stock items. A high rate of out-of-stock items coincided with a drop in M2C conversions, indicating customers could not add desired items to their cart.

- \*\*Validation of Hypothesis 3\*\*:

- C2P fluctuations align with variations in the success rate of payments and average delivery charges. High delivery charges and low payment success rates contributed to drops in C2P conversions.

- \*\*Validation of Hypothesis 4\*\*:

- P2O fluctuations correspond to variations in the success rate of payments and issues with packaging charges. High packaging charges and lower payment success rates resulted in fewer completed orders.

### Conclusion

This analysis demonstrates that overall conversion fluctuations are closely tied to changes in smaller conversions, which are influenced by a variety of factors such as the count of restaurants, out-of-stock items, average discounts, payment success rates, delivery charges, and packaging charges. By addressing these contributing factors, businesses can stabilize conversion rates and improve overall performance.