Dear Editor,

We improved our manuscript considering review report and reviewer comments. We detail below this improvements.

About specific comments, we improve verb missing in page 4, include unit measure after the number 331 (page 6) and give more details about sampling technique, included in page 8: “The sample has an error of 5.4% compared to the total amount of establishments, considering simple random sample method.”

Additionally, we create a new section with brief notes about urban freight trip generation models to improve the understanding of the manuscript.

We submitted this manuscript to proofreading review. If not enough, we are available to re-submit.

Reviewer A:
The paper is interesting but needs several changes to be published. In particular:
1) it is not clear the real (innovative) contribution to the literature;

   We insert a paragraph in the introduction to highlight the contribution of the article. The following transcript (page 2, second paragraph): In this context, in this investigation we hypothesize that a transportation model sensitive for geographic-based context will add quality and efficiency to compute freight trip generation by considering local characteristics. Thus, this paper analysis of freight trip generation model computed based on a survey developed for pubs and restaurants in the city of Belo Horizonte, Brazil. The distinctiveness of this study is the characterization of the sector and the geographical analysis of the results, which intends to define transport policies for the distribution of food and beverage in pubs and restaurants. The methodology proposed in this study intended to provide a guideline for planning of urban freight transport in order to obtain data for freight transport policies through field survey (this type of analysis is still incipient in the Brazilian context).

2) the presentation about linear regression model should be more

   We don't include more information about linear regression model due a modeling recognize by scholars. However, we include a reference about this method.

3) more efforts are needed in data analysis, both in section 3.1 (here multivariate statistical techniques could be used) and 3.2 (here other variables could be employed).

   We improved this section.

4) there is a lack of discussion for estimation results. How the results can be explained? Are they in line with expectations? Are they in line with those obtained in other papers?

   We improved this section.

5) The implications of the results should be discussed in more detail.

Reviewer B:
Concerning the literature and the paper positioning:
The authors cite in the introduction several papers on FTG (freight trip generation). However, it should be completed with some recent works on FTG like Gonzalez-Feliu et al. (2014, 2016), Sanchez-Diaz et al. (2015) or Aditjandra et al. (2016). Also a position with respect to other models (which integrate more than FTG) could be suitable (see for reviews on the subject Anand et al., 2012; Comi et al., 2012; Gonzalez-Feliu and Routhier, 2012).

We included author/papers suggested.

Moreover, authors cite Brazilian works that are in Portuguese, which will be difficult to find and read for non-Portuguese-speaking readers. As they are in my opinion valid works it is not suitable to take off them, but authors need to better explain the scientific interest of those works and the position of the current paper with respect to those. I think in this case it is important to well state on which are the differences of the present work with respect to those works: is it a new model contradicting the previous ones? Is it completing them? In what?

The distinctiveness of this study is the characterization of the sector and the geographical analysis of the results, which intends to define transport policies for the distribution of food and beverage in pubs and restaurants. Additionally, we compared the models developed for Pubs and Restaurants in the Brazilian context to show the needs of local models for the analysis of trip generation and, consequently, the transportation planning. This analysis is in section 4.1.

There is no justification of the scope (pubs and restaurants) of the model. Why authors focus on pubs and restaurants? Is this the Ho.Re.Ca. sector or a subdivision of it? Most papers in literature propose models articulated by type of retailer or premise. In this work, whereas in several works in Portuguese, the focus in on Ho.Re.Ca. sector. What is particular on this sector to justify a specific model? Is it a question of flows? (authors show some values later in the paper but maybe it should be important to introduce them when justifying the choice of the scope field). Is it because of data? Does it come from a request of decision makers? Authors need to clarify those points.

The justification of the scope is on section 4: “The study focus pubs and restaurants sector in Belo Horizonte city, which represents 42% of the number of trip deliveries downtown...”. However, we explain this justification on Introduction.

Regarding the methodology:

The methodological section starts directly by presenting the surveys. As it seems, the particularity of the model is that data have been collected for the needs of modelling, so a thinking phase where data collection and modelling have been discussed and developed in a parallel way seems to be pertinent. Did authors develop data collection for the sake of modelling? It should be interesting to start the methodological section by a summary of the targets of the research, the data collection/modeling choices (without still entering in-depth in their description and/or analysis) and the reasoning that led to those solutions. Then, a schematic description of the phases (data collection, modelling, calibration, etc.)
We included: “In this study we obtained data from a stakeholder specific (retailer), based on interviews, as developed by Aditjandra et al. (2016). For the purposes of modelling urban goods, our data are categorized as vehicle/journeys (the route), as presented in González-Feliu and Routhier (2012), and our model structure are defined as truck/vehicle as presented in Comi et al. (2012) These definitions are very important to characterize our methodology, which consists in:

(i) develop a questionnaire to obtain freight flow data;
(ii) collect the data;
(iii) build and calibrate the model;
(iv) geographically analyse the results to understand the impact of sector analyzed in urban traffic.

- The description of the survey is not clear to me. Why the indicated information/variables are collected? When the data is collected? Why the sample is divided into two spatial categories? Were the pubs and restaurants divided into subcategories? It is important to know the stakes and main methodological issues of the data collection to understand it. There are still many indications in the paper but I think authors should provide the precisions requested above.

We improved this information in section 5. We didn’t divide our sample in two spatial categories: only highlight the concentration of activities in Centro-Sul region. We removed Table with representatives of sample to avoid confusion. We don’t divide our sample and analyses in subcategories due all establishments have similar characteristics: all commercialize food and drinks (included in manuscript). We are available to improve if information is not enough.

About results:
-P.7, the first half page is not clear to me. Are those results from Oliveira (2014)? Is this work anyway connected to that one? Which are the differences or the complementary information? Is the survey made by Oliveira (2014)?

Results are not from Oliveira (2014). We tried comparing our results with similar studies. We improve this section (Results and Discussion) to improve understanding.

-Section 3.1. seems not to have its place here. The paper is about modelling. Yes, those feedbacks are interesting but it is not the object of the paper. Moreover, presented between the data and the model they “cut” a little the paper and make it more difficult to read and follow. I suggest to take it off and to concentrate on the modelling issues.

We changed the structure of the paper to enhance the understanding of the results.

-Table 4 is interesting. However, I think that it should be more interesting to report all analysis, even those that resulted into an $R^2 < 0.5$. Moreover, it seems that authors explore only the relation $Y=a.X$, without regarding $Y=b$ or $Y=d.X+e$, or a multivariable regression. Why? Can authors make analyses with two or three variables? (for example mixing area and employment)? Are those models less accurate than those presented?

We included others model considering multivariable regression.
- Models’ results are little discussed. Authors should discuss the results to state on which are the differences among models (since they are very close in terms of R²). Moreover, R² is not the sole indicator, there are other ways of strengthening the model. The only presentation of T-test value, without commenting it, is not enough. Same for F-Test. Which are real values? Is it an order of E-3? E-12? This is not really the same although in all cases we can write them as 0. Which model is then the most solid? Can authors plot all models to see the accuracy of the approximation with respect to the plot?

  We included additional information in section 5.2 to cover this comment.

- Then, authors tell about time distribution and propose some maps of the concentration of deliveries. However, they are not really related: except a sentence in the end of page 8, there is no other mention to time. I think this part (concerning time) is to take out or to make it as an endnote, since there is not enough information for an in-depth analysis. Unless the surveys got some interesting information, in this case it needs to be reported at the beginning of section 3 when presenting the main insights of the surveys’ results.

  We included additional comments about maps of concentration of deliveries.

- The maps are however interesting and need more discussion. Which are the more concentrated zones? Can authors relate it to urban space? (as on Ducret and Gonzalez-Feliu, 2015)

  We included these phases: “these findings, when put together with the situation of the transportation urban infrastructure and the current transportation policies, revels an alarming scenario. According to the numbers, in this scenario 71% of the pubs and restaurants require their goods deliveries in a very short time. Thus, it is easy to picture that this scenario forces a large amount of vehicles competing for parking spaces and an efficient flow in the streets.

- The geographical analysis is too short and descriptive; it needs to be made more in-depth. Maps are difficult to be read and would be put in a higher size and resolution.

  We improved resolution of maps and improved geographical analysis.

- Moreover, are the maps representing the current situation or a scenario? In both cases, explain how data has been obtained and how the model is used (in other words, how the maps are built) then comment them, by making explicit links to maps (for example, can we find an evident relation between road network and number of deliveries? Does residential population have an impact on freight needs? Which are the highest generating zones? Are they highly populated and with very good networks or not?

  We improved section (5.3) to include this suggestion.

- English needs to be reviewed. Please, make it read by an English native since we can observe several typos.

  The manuscript was proofreading by English native.
- P.5. Why a linear regression is validated with $R^2 > 0.5$? Authors should cite the reference works that they refer to take those assumptions for model validation.

We don't find a reference works to support this assumption, except ITE (2008) cited on manuscript. “For this study, we considered valid the equations which $R^2$ is greater than 0.5 (ITE, 2008),...”

-P. 5, last paragraph: special analysis? Did authors intend “spatial analysis”?

It is spatial analysis

-P.5 last paragraph: Ducret et al. (2015) is Ducret and Gonzalez-Feliu (2015). The work of Ducret et al. (2015) focus on spatial categorization, that of Ducret and Gonzalez-Feliu (2015) on FTG coupled to that spatial categorization (i.e. the FTG component appears only in Ducret and Gonzalez-Feliu, 2015).


- P.6, second paragraph: “food and beverage represents 40% of the goods ...”. Is it in terms of quantity? Trips? Number of deliveries?

42% of freight number of deliveries.

P.6, last paragraph: I do not understand the sentence: “The sample has an error of 5.4% to the total amount of establishments”. Please rewrite.

We improved the sentence.

**Reviewer C**

Page 4. A verb is missing in the underlined text.

We change to: “this paper analysis of freight trip generation...”

Page 6.

- A unit measure is missing after the number 331.
  Corrected: 331 km$^2$

- Some details should be given on the sampling technique. The underlined sentence below has to be made clearer
  We gave more information about sampling technique.