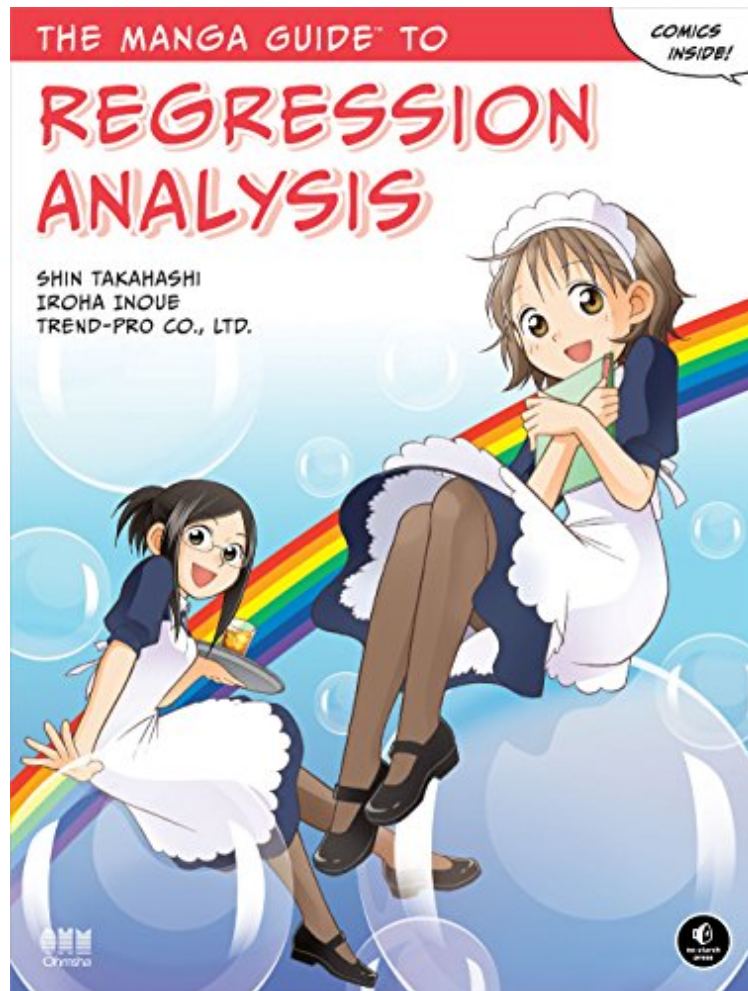


The Manga Guide to Regression Analysis

*Shin Takahashi, Iroha Inoue, Co Ltd Trend
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Shin Takahashi, Iroha Inoue, Co Ltd Trend : The Manga Guide to Regression Analysis before purchasing it in order to gauge whether or not it would be worth my time, and all praised The Manga Guide to Regression Analysis:

15 of 17 people found the following review helpful. Not a clear presentation of the subjectBy Angie BoyterI am not a manga devotee, but I have a math background, and I appreciate creative initiatives intended to make math more fun and more understandable. The Manga Guide to Regression Analysis looked like an enjoyable way for me to try manga and perhaps find a book to recommend those whose love of math does not match mine.The Preface says that the intended audience is "statistics and math students who may be having difficulty grasping regression analysis, or anyone wanting to get started with statistical predictions or probabilities". It says some basic knowledge of statistics is needed (and recommends the Manga Guide to Statistics, not surprisingly) but presumably is not intended for math lovers. If so, I think it misses the mark for the intended audience.The manga story is cute if a bit lightweight--- a shy student who works in a tea room and is apparently not a great student of math asks her friend to help her learn regression analysis so that she can impress a studious young man who is a frequent customer at the tea

room. Unfortunately, I fear the approach to the subject taken in the book would likely scare off anyone who is not a real math fan before they get very far. The first 45 pages are not about statistics at all but are on mathematical concepts that are not really central to an introduction to regression analysis, like logarithms and differential calculus. It would be much better to introduce these subjects, if they are really needed, later after the basics of regression analysis has been explained and the reader is more motivated to learn them. (I took a full-semester course on applied regression analysis, and I don't think we used calculus.) Worse, many of the explanations are not very clear and are likely to be confusing to someone who does not already know the concept. I thought the very first topic, inverse functions, was so poorly described that I showed it to a friend, who concurred. Some of the problem could be due to the translation, but clearly not all the blame lies there. Once the book moves on to statistics, the explanations do not get clearer. For example, it defines "linearly independent" to mean that "no set of J columns shown can be used to exactly infer the content of another column within that set." This makes no sense and is likely to make the poor reader reread and scratch his or her head several times before understanding it; it should say something like "no subset of J columns can be used to exactly infer the content of another column in the data set." In sum, I can't recommend this book to someone having trouble learning regression analysis or wanting an introduction to the subject.

5 of 5 people found the following review helpful. Cute and educational
By Johanna Draper Carlson
Never have I seen such an adorable way to learn higher-level mathematical techniques. Regression analysis, as the preface tells us, consists of "statistical methods for predicting values". The main example used here involves two waitresses at a tea shop using observed data to predict how iced tea orders vary with the outside temperature. One expects that you'd sell more of the refreshing beverage when the weather is hotter, but they work out just how much with math. That's simple regression analysis. There's also a chapter on multiple regression analysis, where a result depends on more than one factor. They examine how much business a shop will do based on both its size and its distance from the nearest train station. The book concludes with a chapter on logistic regression analysis, or how to predict the probability of something happening. As a math major, I've previously been exposed to the concepts of matrices, differential calculus, logarithms, and standard deviations, but I didn't know what they could actually be used for. I was really involved in the first chapter, which is a refresher on many of these topics, in order to set up the necessary math knowledge needed for the meat of the book. I had a lot of fun diving into these formulas and examples. Of course, typical of this series, there's a romantic element. The younger waitress, Miu, has a crush on one of the regular customers, a boy who comes in to study his advanced math books. The older woman, Risa, agrees to tutor Miu in regression analysis so she can talk to the boy. I was impressed that, although functional, the two also seem like real people in their gestures and emotions. The art does its job. It's not intended to stand out, but to make the concepts memorable and provide cute girls to look at while studying math. At that, it succeeds. The characters are fun and lively. It's encouraging to see someone so eager to learn more about variance analysis and confidence intervals. Also standard for the series, there are text pages after each chapter that explain the concepts and equations in more detail (because there's only so much mathematical detail you can put into a comic). This volume also has a section on how to use Microsoft Excel functions to calculate some of the complicated formulas. (The publisher provided a review copy. Review originally posted at ComicsWorthReading.com.)

4 of 4 people found the following review helpful. Math Meets Manga
By Antigone Walsh
While I applaud the effort to make math entertaining, the manga falls flat and the math gets confusing. The focus is a doozy little girl who works with her friend in a tea room. They are both dressed curiously like French maids. The first girl has a crush on a boy who appears to be a math whiz and hopes that learning math will make her attractive to him. It would have been better had she pursued math as a way to get a high paying job that doesn't require wearing a maid's costume. It takes awhile before regression analysis is explored in any detail. I think the problem is that the level of exposure to statistics and basic math concepts is not well defined. At times it seems like a beginner book and at others for intermediate to advanced students. Beginners will be lost and advanced students will be bored. Not a bad idea but one that does not quite make the grade.

Like a lot of people, Miu has had trouble learning regression analysis. But with new motivation—in the form of a handsome but shy customer—and the help of her brilliant cafe coworker Risa, she's determined to master it. Follow along with Miu and Risa in *The Manga Guide to Regression Analysis* as they calculate the effect of temperature on iced tea orders, predict bakery revenues, and work out the probability of cake sales with simple, multiple, and logistic regression analysis. You'll get a refresher in basic concepts like matrix equations, inverse functions, logarithms, and differentiation before diving into the hard stuff. Learn how to: Calculate the regression equation; Check the accuracy of your equation with the correlation coefficient; Perform hypothesis tests and analysis of variance, and calculate confidence intervals; Make predictions using odds ratios and prediction intervals; Verify the validity of your analysis with diagnostic checks; Perform chi-squared tests and F-tests to check the goodness of fit. Whether you're learning regression analysis for the first time or have just never managed to get your head around it, *The Manga Guide to Regression Analysis* makes mastering this tricky technique straightforward and fun.

About the Author Shin Takahashi attended Kyushu University, where he graduated with a master's degree in information technology. Having previously worked both as a data analyst and an instructor, he is now an author specializing in technical books. He is the author of "The Manga Guide to Statistics" and "The Manga Guide to Linear Algebra" (No Starch Press).