Abc analysis template in excel

ABC analysis is a popular technique to understand and categorize inventories. Imagine you're handling inventory at a factory that produces high-end super expensive cars. Each car requires different parts (4,693 to be precise) to assemble. Some of these parts are very expensive (say several thousand dollars per share), while others are cheap (50 cents per part). So how do you optimize your inventory tracking so you waste less time on 50 cents of parts & spend more time on expensive parts? This is where ABC analysis helps. We group the parts into 3 classes. Class A: High-cost items. Very tight control & tracking. Class B: Average cost items. Tight control & moderate tracking. Class C: Cheap items. No or little control & tracking. Given a list of items (partial numbers, unit costs & number of units needed for assembly), how do we automatically calculate which class each item belongs to? And how do we generate below ABC analysis chart of it? That's what we're going to learn. So take your inventory and follow along. (related: ABC Analysis page on Wikipedia) ABC analysis with Excel – Step by step tutorial 1. Organize the inventory data in Excel Get all inventory data (or components) in Excel. Your data must have at least these columns. Unit subname unit cost (if it's empty, just type 1 in all rows) Once the data is in Excel, turn it into a table by pressing Ctrl+T. You set the table name on the Design tab. (Related: Introduction to Excel tables) 2. Calculate additional columns needed for ABC classification Now comes the fun part. Cracking the stock data with formulas. Yummy! Total Cost: This is just a multiplication of unit cost & # units of Grade: We need to figure out which grade each total cost is (in the total cost column). For this we can use the RANK formula. =RANK([[[Total Cost]],[Total Cost],0) tells us the rank for each total cost. Cumulative Units: Once we know the rank of each item, we need to figure out how many total units are needed for items that are ranked less or equally. For example, the number (#) of the third part (PT3959-waes) is 3. Cumulative units for this is 91. This means that 91 is the total number of units for the first three ranked parts (parts #8, 9, and 16). The formula for this is=SUM. [[Units],[Rank],<=&[[]] Remember that [@['#]] refers to performing numbers (1,2,3....4692.4693) Cumulative units %: this is a percentage of cumulative units in total. The formula is simple, =[@[c Units]]/MAX([c Units]) [Related: using structural references in Excel – video] Cumulative cost & cumulative cost %: these are comparable (instead of units, we calculate costs) Explanation of these calculations: See animation below to understand how the numbers are cracked. 3. Create inventory distribution chart Select cumulative units & cumulative cost % columns and create an XY chart. Ensure that cumulative units are located on the horizontal (X) axis and the cumulative cost % on vertical vertical As. Our curve should look something like this. 4. Set ABC classification thresholds in Now we need to decide what the threshold is for class A, B&C. For most situations, Class A is usually top 10% of items. Class B would be next 20% Class C would be the last 70%. But these numbers can change depending on your industry, manufacturing settings. Let's say, some where in our spreadsheet, user has defined the thresholds for classes in a range like this: So $O $7:$O $9 contains the thresholds. In addition to this range, calculate additional numbers (for plotting A,B&C markers and boxes) such as this: Check the download file for exact formulas. 5. Add the ABC Items & % Total Cost columns to Chart Add the additional data to the chart (by right-clicking chart and selecting data box & clicking the Add button). Once the new series is added, make sure you format it as markers just so we can get something like this. 6. Add error bars to the ABC markers to get boxes This step includes adding error bars to ABC marker sequences and customizing them. In Excel 2013: Add error bars by clicking the + button next to chart in earlier versions: Do this from the layout ribbon Once error bars are added, adjust them (select and press Ctrl+1). Set the error amount to Custom and select the calculated error values as shown below. Once added, format the error bars to not change cap show and line color into something pleasant. Now we have boxes on the map. 7. Clean up the chart, add labels & titles This is what you're getting creative about. After some cleanup, we can come to something like this. Download ABC Inventory Analysis Template Workbook Click here to download the ABC Inventory Analysis workbook. It contains sample data & chart. Check out the formulas & chart settings for more information. Or if you're in a hurry, replace the sample data with your inventory data and get instant results. Do you use ABC analysis for inventory tracking & control? I'll be honest. I've never worked as an inventory controller in a super-car factory. That said, I run a business and we have inventory. Not physical but digital inventory. So I often use analysis like ABC or pareto to quickly figure out where to focus my efforts. What about you? Do you use techniques like ABC analysis to limit them to a few items that matter most? How do you do that in Excel? Share your tips & experiences using comments. Add a few more techniques to your inventory With a low feel on your Excel skills inventory? Stock with among goodies. Logiwa is a leading cloud-based order handling, warehouse and inventory management software that has been providing retail, e-commerce, wholesale and global servant. Our customers get up to 100% inventory accuracy and double their shipments thanks to increased efficiency. In this post I will introduce you to the ABC analysis and pareto principle that you use to optimize your inventory management and logistics. (ABC Analysis video preview Activate the automatic subtitle in English) Many people feel that you need to be an excel or data specialist to analyze your supply chain to improve and reduce your inventory management. There are indeed very advanced methods that require specific expertise, often expensive, but that allow positive results to be obtained. But there are also many very simple and affordable ways of evaluating and better managing stocks, but these remain little or unknown, despite their proven effectiveness. Pareto Principe 80% of the results are produced by 20% of the causes Vilfredo Pareto, 19th-century Italian economist. 20% of the population owns 80% of the wealth -You spend 80% of your time with 20% of your friends.20% of your customers represent 80% of your sales.20% of your suppliers represent 80% of your purchases.20% of your products represent 80% of your sales.20% of your products represent 80% of your inventory. What we need to remember from the Pareto rule is that 20% of our actions produce 80% of our results. In our case, 20% of our products represent 80% of our sales and turnover. One of the classic mistakes is to focus not on this 20%, but on the remaining 80%, which represents only 20% of our company. This is what it looks like in the form of a graph: Pareto Curve – ABC Analysis realized on the basis of store data It is at first sight clear that 5% of the products sold represent 40% of sales and 20% of the products sold therefore represent our famous 80% of sales. The same goes for the value of your shares: Pareto curve – ABC method for your sales ABC analysis of Excel: an example in 5 steps 1) First retrieve your history and forecasts, retrieve your sales history and forecasts, and classify them by month and references. If you don't have forecasts, try to create them or focus only on your history. I strongly recommend that you use volume in value rather than quantity. Why? For example, if you sell millions of plastic bags for your business, they represent a significant amount, but they have little or no value. So take your historical and forecast data on reference and future data instead of past data. For example, I usually select 3 months past time and 9 months forecast data. Why? Why? Just in case you introduce new products, this will allow you to take them into account and focus on them more easily. If you run out of forecasts, you add up the last 6 or 12 months. 2) Sort the products Secondly we will try to sort our products in terms of sales over the selected 12 months. If you don't know how to make one, watch our video on Youtube here. Select your tables at the bottom of your so you don't have to change your PivotTable when introducing new items. Then, in the following order, select the item codes, the item description, and a 12-month column. Display your table in tabular form and remove all totals to get a clear and easy-to-read result. Then click the extra sort option and select your expiring sorting by your 12-month amount. Just identify them as product 1, 2... And so on. 3) Enter the cumulative sales percentages Add now the item percentage and the percentage of sales, i.e. those they represent in your sales and turnover as a . For items, enter the NB formula (number) that determines the total number of items. Then divide the items by the total number of items Also for sales: the revenue generated by a product is divided by global sales Drag and Fall by adding the previous percentage to obtain the cumulative percentage of items relative to sales. 4) Set the ABC analysis in Excel The ABC codes: In the last column, you add the IF formula (cumulative revenue percentage < 40%, then it's an A code, if cumulative turnover rate > 80%, then it's a C code, if neither, it's a B code). The details of this formula are explained in the video and vary depending on your data. For more visibility, include conditional formatting colors for each different code, then search for your credentials based on their code using the VLookup features in Excel. To get the chart, select your table and add your curve to the insert sheet. 5) Create your Pareto curve Eventually we obtain a curve and an ABC distribution that is very close to the distribution of the Pareto curve. Please note that your Excel needs to be updated at least once a week, especially if you work in tenders. A common mistake is not spending enough time on this ABC classification, which represents a significant saving of time and money. Download the Excel ABC Analysis You download the excel ABC method presented above with 500 articles on this link Continue: ABC XYZ Analysis One of the flaws of the ABC method (each tool has its qualities and flaws) is that it does not take into account the volatility of sales or consumption. It is then necessary to turn to an ABC XYZ classification. The ABC XYZ rating therefore provides a framework for developing and refining inventory management strategies by classifying products based on their sales volume (ABC), but also based on their uncertainties (XYZ). Your purchasing strategy will then vary according to this new classification to optimize your inventory and customer service rate. You can read our article on the ABC XYZ classification here