The axial crushing of thin-walled metal circular tubes was addressed in this work for its importance in many engineering applications especially when failed in concertina mode. Theoretical estimates of the peak load were formulated for lower and upper bounds based on Rankine-Gordon principle and the elastic-plastic criterion of buckling, respectively. Numerical simulations were also made to validate these estimates using ABAQUS 14-2 finite element software. Previous findings were compared with both the theoretical and numerical results of the present work. It is found that the peak load is unique for a particular specimen, while the lower bound stress can be equal for different values of $D$, $t$ and $L$, as long as the $D/t$ ratio is the same. Moreover, the upper bound stress requires both $D/t$ and $L/D$ ratios. It was also found that all numerical results agree favorably with the theoretical predictions, but not with all of the experimental findings. This partial disagreement was proved to be attributed to the questionable data extracted from one of the cited work. Empirical relations for the available experimental findings were established to confirm the source of disagreement as well as to afford a unified relation which might represent data of different materials, and finally to offer an alternative prediction of experimental peak load.