Galaxy cluster properties such as total mass, X-ray temperature (TX) and luminosity (LX), velocity dispersion (sigma_P) and optical luminosity (Lopt) can be used to define scaling relations which are very helpful for studying the intra-cluster medium (ICM) and cosmology. An important tool for the latter is the cluster mass function and its evolution with cosmic time. However, the ability to compute the mass function for a large data set depends on the connection between cluster mass and an easily observable quantity. Underestimation of the scatter of the mass-observable relation could lead to controversial determinations of cosmological parameters. Here we investigate the connection between richness, optical and X-ray luminosity to different cluster properties, including mass. We used spectroscopic and photometric data from the Sloan Digital Sky Survey (SDSS) to derive those parameters for 180 clusters. For nearly all clusters we estimated X-ray luminosity using archival data from ROSAT. We show that richness, optical and X-ray luminosity can be used as reliable mass proxies. However, when comparing the performance of these parameters we find that the optical properties leads to more accurate relations than X-ray luminosity. Substructure is estimated using two and three dimensional optical data. We verify that when using a radius that scale with mass (such as R$_{200}$) there is no significant impact of substructure in the cluster scaling relations. Finally, we compare the scaling relations obtained with masses estimated from the virial analysis and from the tight connection to the temperature of the ICM. The scaling relations derived from the optical and X-ray masses are indeed very similar, indicating that mass calibration can be accurately performed and give equivalent results no matter the wavelength from which mass is derived.