Maha AbuShusheh was born in 1962 in Ramallah, and attended Ber Zeit University for her BA in Economics. She began her professional career as a co-manager of Abu-Shusheh Contracting Co., a road construction contractors, and became the manager in 1988. She developed the family business by establishing the sole agency of Peugeot Automobiles in Palestine. Currently, she is involved in many business and cultural organizations. She is the Chairwoman of Palestinian Business Women Forum, the president of the board of directors of Riwaq (the Palestinian association for the preservation of architectural heritage), the last chairman of the Palestinian Shippers Council (association representing the Palestinian importers and exporters). She is also a member of PALTrade, a board member of The Arab Businesswomen Counsel and a member of the board of trustees in AlQuds University, board member of Palestinian Medical Relief Association, and other associations. Ms. AbuShusheh was named as one of Forbes Arabia's top 50 influential Arab businesswomen for year 2006 and also 2007 – the only Palestinian woman to make the list, and also one of Forbes Arabia's top 100 influential arabs.

She is married with 4 children.