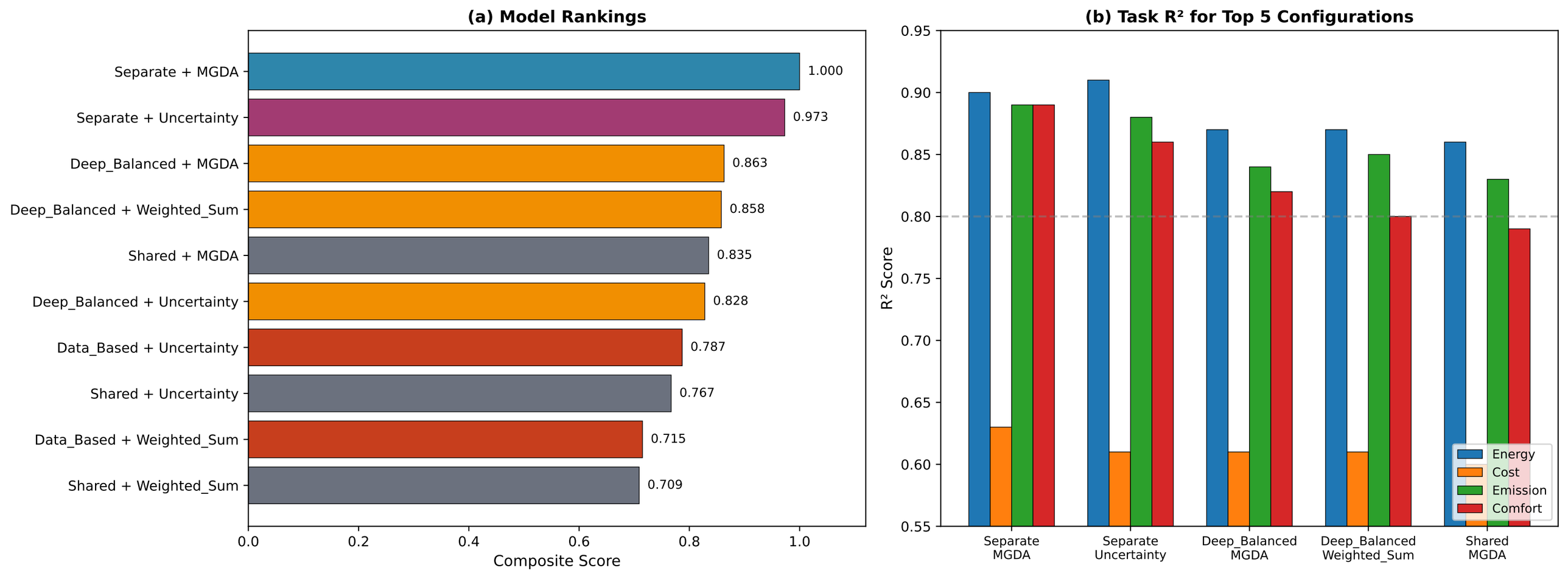
(a) Model Rankings
Separate + MGDA
Separate + Uncertainty
Deep_Balanced + MGDA
Deep_Balanced + Weighted_Sum
Shared + MGDA
Deep_Balanced + Uncertainty
Data_Based + Uncertainty
Shared + Uncertainty
Data_Based + Weighted_Sum
Shared + Weighted_Sum
1.000
0.973
0.863
0.858
0.835
0.828
0.787
0.767
0.715
0.709
0.0
0.2
0.4
0.6
0.8
1.0
Composite Score
(b) Task R² for Top 5 Configurations
R² Score
0.95
0.90
0.85
0.80
0.75
0.70
0.65
0.60
0.55
Separate MGDA
Separate Uncertainty
Deep_Balanced MGDA
Deep_Balanced Weighted_Sum
Shared MGDA
Energy
Cost
Emission
Comfort