

MODEL REPORT

BRAND A:

Selected Model: **SVM Sigmoid** (among Logit, Bernoulli Naive Bayes, SVM Bayesian, SVM Polynomial, Random Forest, Artificial Neural Network).

Selected Variables: **35** (vrb_13, vrb_399, vrb_400, vrb_022, vrb_021, vrb_008, vrb_155, vrb_163, vrb_005, vrb_169, vrb_075, vrb_451, vrb_231, vrb_273, vrb_107, vrb_104, vrb_458, vrb_298, vrb_176, vrb_95, vrb_26, vrb_307, vrb_308, vrb_290, vbr_174, vbr_374, vbr_23, vbr_433, vbr_410, vbr_333, vbr_292, vbr_143, vbr_264, vbr_359, vrb_310).

Dataset: **290 instances** (80% training | 20% validation).

TRAINING METRICS:

Accuracy: 0.7793

Precision: 0.7667

Recall: 0.7986

F: 0.7823

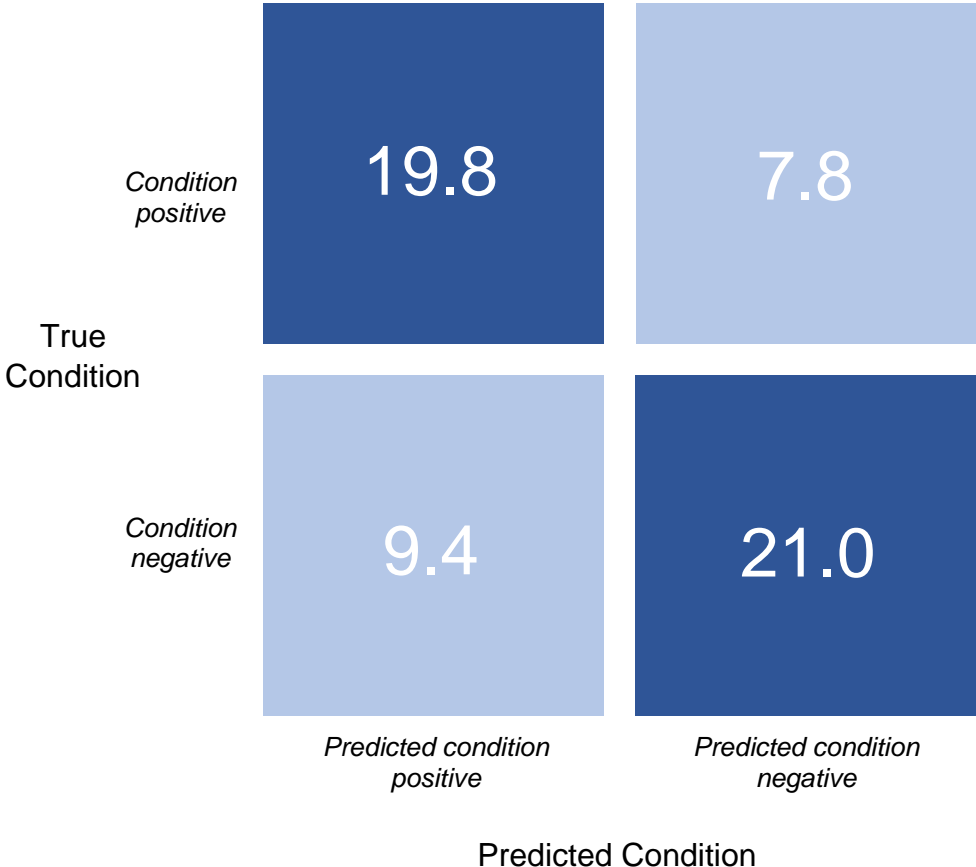
Contingency Table:

True Condition	Condition positive	92	23
	Condition negative	28	89
		Predicted condition positive	Predicted condition negative
		Predicted Condition	

VALIDATION METRICS (average of 30 iterations):

Accuracy: 0.7034
Precision: 0.6781
Recall: 0.7174
F: 0.6972

Contingency Table:



BRAND B:

Selected Model: **Logit** (among Logit, Bernoulli Naive Bayes, SVM Bayesian, SVM Sigmoid, SVM Polynomial, Artificial Neural Network).

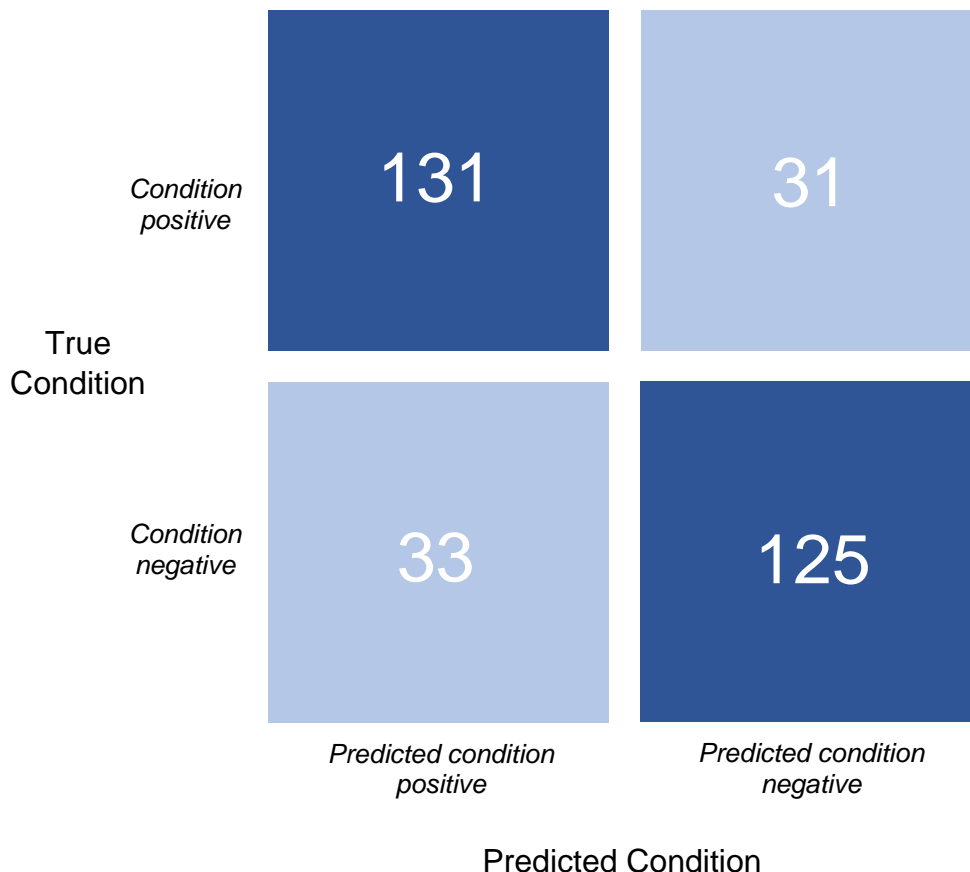
Selected Variables: **68** (vbr_023, vbr_433, vbr_292, vbr_143, vbr_264, vbr_359, vrb_310, vbr_010, vbr_013, vbr_055, vbr_028, vbr_210, vbr_205, vbr_251, vbr_268, vbr_307, vbr_313, vbr_478, vbr_488, vrb_254, vrb_365, vrb_13, vrb_241, vrb_235, vrb_209, vrb_399, vrb_400, vrb_022, vrb_021, vrb_008, vrb_155, vrb_163, vrb_174, vrb_002, vrb_005, vrb_169, vrb_075, vrb_451, vrb_231, vrb_301, vrb_298, vrb_273, vrb_107, vrb_104, vrb_458, vrb_298, vrb_176, vrb_95, vrb_26, vrb_307, vrb_308, vrb_290, vbr_174, vbr_115, vbr_502, vbr_510, vbr_473, vbr_451, vbr_371, vbr_325, vbr_226, vbr_222, vbr_217, vbr_198, vbr_061, vbr_070, vbr_080, vbr_118).

Dataset: **400 instances** (80% training | 20% validation).

TRAINING METRICS:

Accuracy: 0.8000
 Precision: 0.8000
 Recall: 0.8079
 F: 0.8039

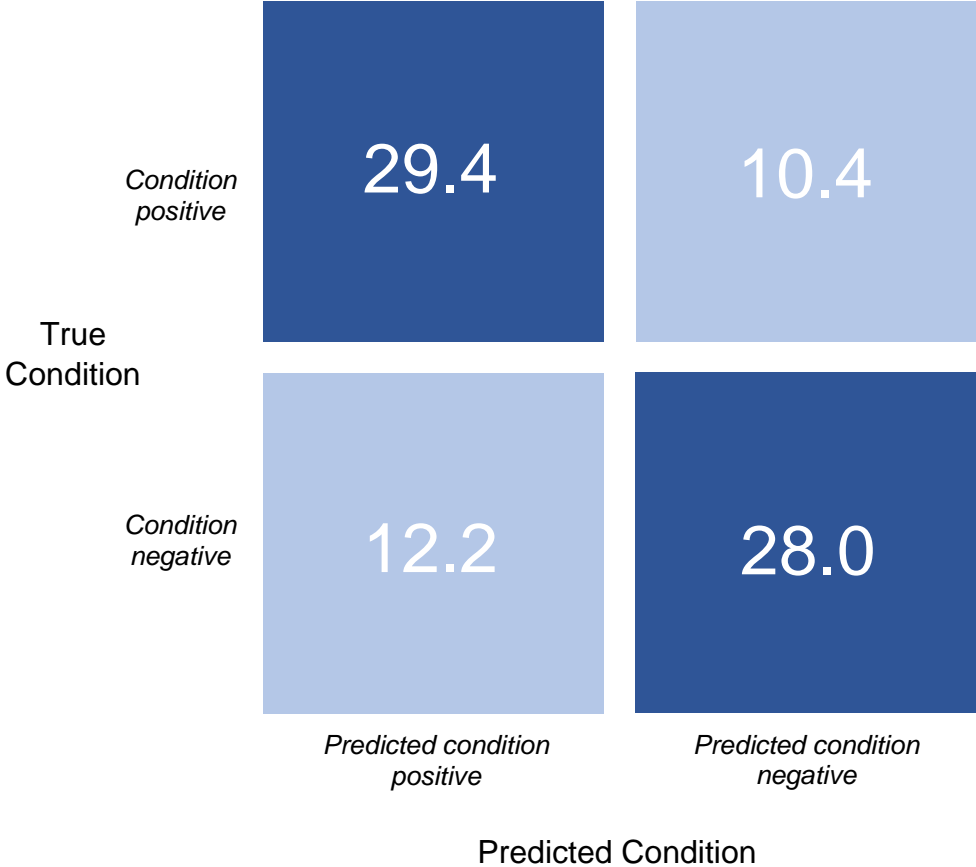
Contingency Table:



VALIDATION METRICS (average of 30 iterations):

Accuracy: 0.7175
Precision: 0.7067
Recall: 0.7387
F: 0.7224

Contingency Table:



BRAND C:

Selected Model: **SVM Bayesian** (among Logit, Bernoulli Naive Bayes, SVM Bayesian, SVM Polynomial, Random Forest, Artificial Neural Network).

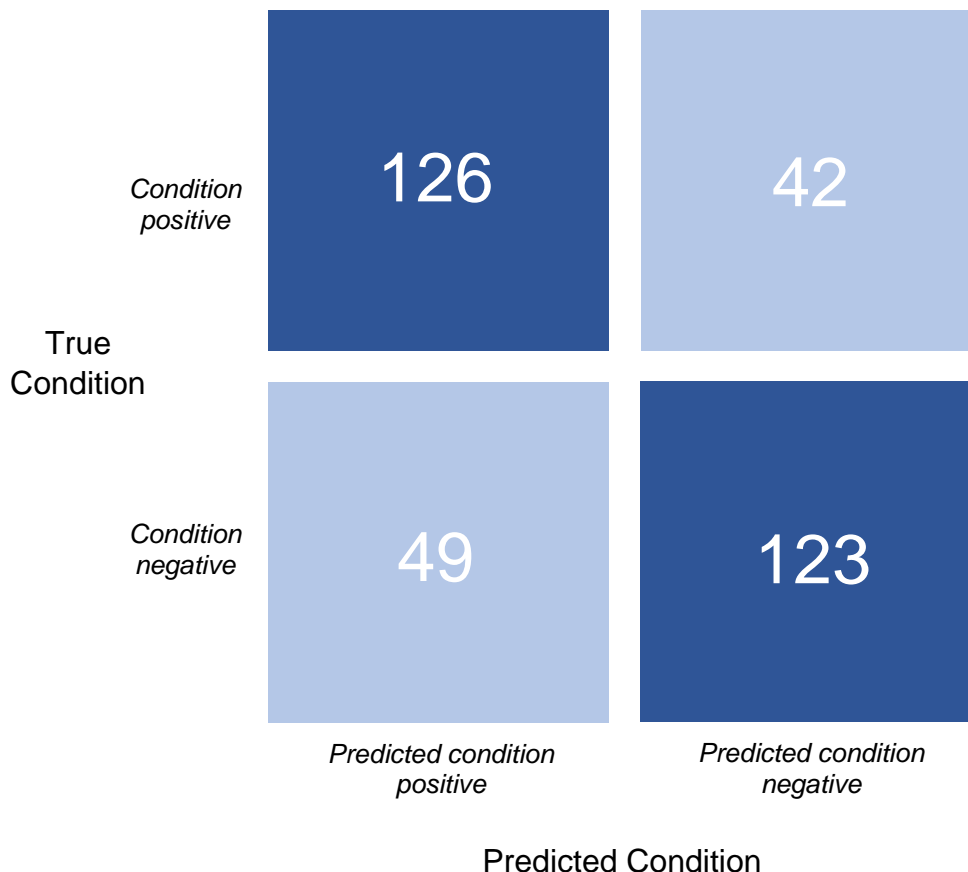
Selected Variables: **80** (vrb_075, vrb_451, vrb_231, vrb_301, vrb_298, vrb_310, vbr_010, vbr_013, vbr_055, vbr_028, vbr_210, vbr_205, vbr_251, vbr_268, vbr_307, vbr_313, vbr_174, vbr_115, vbr_502, vbr_510, vbr_473, vbr_451, vbr_371, vbr_325, vbr_226, vbr_222, vbr_217, vbr_198, vbr_061, vbr_070, vbr_080, vbr_118, vbr_159, vbr_83, vbr_374, vbr_23, vbr_433, vbr_410, vrb_235, vrb_209, vrb_399, vrb_400, vrb_022, vrb_021, vrb_008, vrb_155, vrb_163, vrb_174, vrb_002, vrb_005, vrb_169, vbr_243, vbr_320, vbr_382, vbr_385, vbr_520, vbr_073, vbr_333, vbr_292, vbr_143, vbr_264, vbr_359, vbr_521, vbr_412, vbr_305, vbr_401, vbr_032, vbr_014, vbr_147, vbr_166, vbr_066, vrb_273, vrb_107, vrb_104, vrb_458, vrb_298, vrb_176, vrb_95, vrb_26, vrb_307).

Dataset: **425 instances** (80% training | 20% validation).

TRAINING METRICS:

Accuracy: 0.7341
 Precision: 0.7215
 Recall: 0.7524
 F: 0.7366

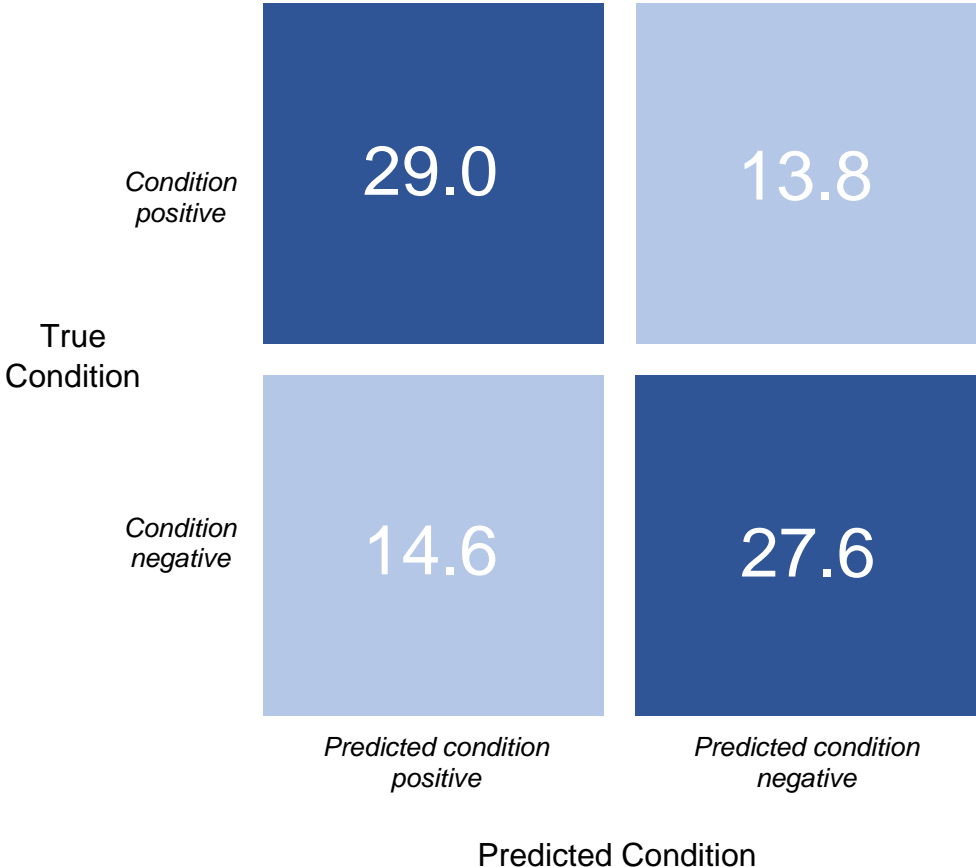
Contingency Table:



VALIDATION METRICS (average of 30 iterations):

Accuracy: 0.6659
Precision: 0.6651
Recall: 0.6779
F: 0.6713

Contingency Table:



BRAND D:

Selected Model: **Bernoulli Naive Bayes** (among Logit, SVM Sigmoid, SVM Bayesian, SVM Polynomial, Random Forest, Artificial Neural Network).

Selected Variables: **45** (vrb_102, vrb_113, vrb_012, vrb_013, vrb_203, vrb_235, vrb_209, vrb_399, vrb_400, vrb_022, vrb_021, vrb_008, vrb_155, vrb_163, vrb_174, vrb_002, vrb_005, vrb_169, vrb_075, vrb_451, vrb_231, vrb_301, vrb_298, vrb_273, vrb_107, vrb_104, vrb_458, vrb_298, vrb_307, vrb_308, vrb_290, vbr_174, vbr_115, vbr_83, vbr_374, vbr_23, vbr_433, vbr_410, vbr_333, vbr_292, vbr_143, vbr_264, vbr_359, vrb_310).

Dataset: **320 instances** (80% training | 20% validation).

TRAINING METRICS:

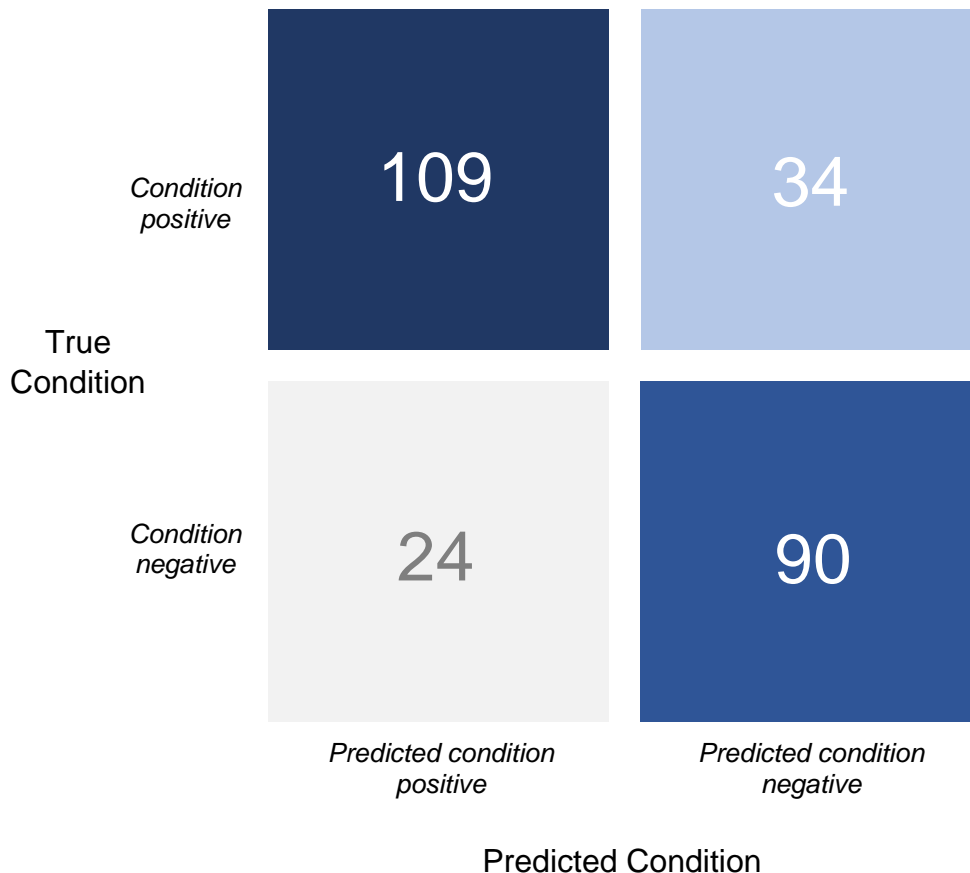
Accuracy: 0.7750

Precision: 0.8193

Recall: 0.7640

F: 0.7907

Contingency Table:



VALIDATION METRICS (average of 30 iterations):

Accuracy: 0.7438
Precision: 0.7330
Recall: 0.7866
F: 0.7588

Contingency Table:

