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Reintegration Economic Survey (RES)

Model 1: Determinants of Business Success

Logistic regression was used to identify the determinants of business success. The dependent variable was Business Success (“Comment se porte votre entreprise ou business actuellement ?”). Business Success initially had 5 possible outcomes (Figure 1), but was recoded to 2 outcomes (High or Low Business Success, Figure 2) to obtain a balanced sample with a sufficient number of observations in each category.

Figure 1

Proportion of outcomes of Business Success (N = 1,952)

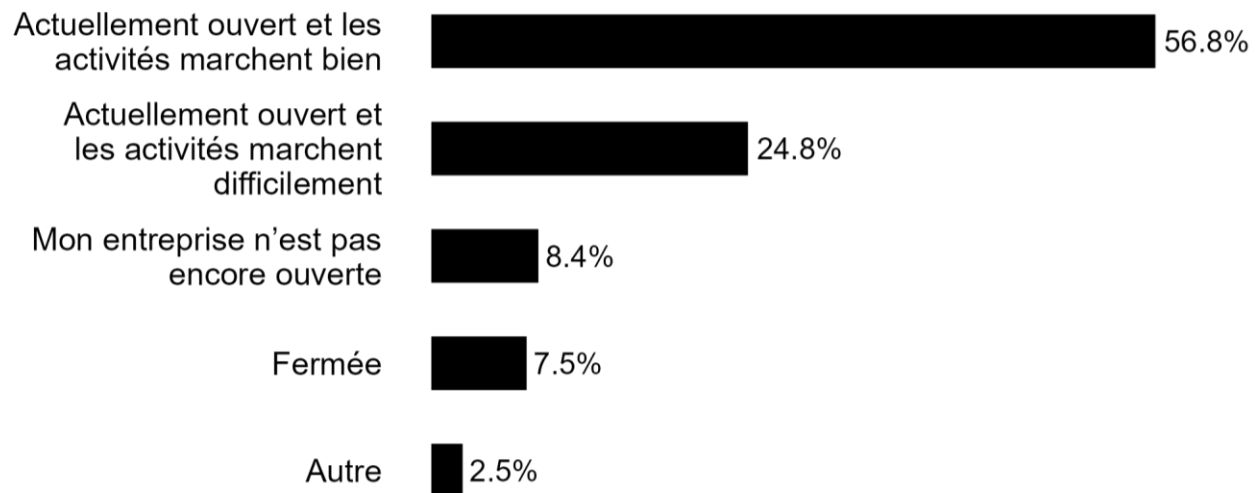


Figure 2

Proportion of outcomes of Business Success (recoded, N = 1,917)



Fourteen variables were used as predictors of Business Success. These predictors are listed in the Set of Tables 1. One variable, Business Has Employees, was not used due to collinearity with Employee Number (VIF = 3.600; Tolerance = 0.278).

As for the dependent variable, most independent variables were recoded to a smaller number of categories to achieve a sufficient number of observations in each category (see Appendix I on how these were recoded).

Results showed that the best predictors of Business Success are the country of interview, the number of employees in the business, the business type, whether the assistance type received was the first choice of the respondent, and whether the respondent received business advice from IOM (all $p < .001$). The full results are in Set of Tables 1.

For example, respondents in Ghana are more likely to report a High Business Success than respondents in any other country, after controlling for the effect of all other variables. Furthermore, respondents who had employees are at least 2.4 times more likely to report a High Business Success than those who do not have employees, and respondents who have a business in transport are more than 4 times more likely to report a High Business Success than those in agriculture or aviculture.

Other significant predictors of Business Success were age, gender, and business members ($p < 0.05$), with the country of return being borderline significant ($p = 0.07$). In contrast, the kind of support received (cash vs. materials), disability, and how long the respondent was a migrant, do not seem to determine Business Success.

This model has an accuracy of 69% (pseudo R-squared = 0.151), meaning that it correctly predicts whether respondents will have a High or Low Business Success in 69% of all cases (an improvement of 11 percentage points over the baseline).

The fact that transport is apparently the most successful business type is surprising, especially since transport assistance was proposed mainly in a single country, Guinea. Although the above model controls for country and shows that overall, transport is a highly successful activity, it does not control for whether transport is successful *depending* on which country in which it is proposed.

To find out, we ran the same model with an interaction term, which was Country * Business Type. Results are presented in Appendix I, and show that the interaction is borderline significant ($p = 0.052$). Except in Senegal, transport businesses are more likely to yield a High Business Success than a Low Business Success, in at least 70% of cases. In other words, we cannot say that transport is successful only in Guinea, or that the success of transport businesses is explained (only) by the country in which it is implemented.

All that being said, does this mean that transport is the most successful type of activity? Not necessarily. To find out, a larger sample size would be needed for all cities, which is one limitation of the current data set.

Set of Tables 1

Binomial Logistic Regression for Business Success

Model Fit Measures

Model	R^2_{McF}	Overall Model Test		
		χ^2	df	p
1	0.146	381	26	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
Country	110.1203	5	< .001
EmployeeNumber	44.0700	2	< .001
BusinessType	41.2070	4	< .001
FirstChoice	30.2756	1	< .001
ReceivedIOMBusinessAdvice	13.1366	1	< .001
AgeGroup	9.7909	1	0.002
BusinessMembers	8.3377	1	0.004
Gender	7.0912	1	0.008
CountryOfReturn	8.4372	4	0.077
Disabled	2.2887	1	0.130
ReceivedSupportAs	2.6113	2	0.271
InterviewType	0.6815	1	0.409
MigrationDuration	0.2600	1	0.610
CoronaImpactOnBusiness	0.0447	1	0.832

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-3.2050	0.3866	-8.291	< .001	0.0406
Country:					
Autre – Côte D'Ivoire	-0.2318	0.2226	-1.041	0.298	0.7931

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
Burkina Faso – Côte D'Ivoire	0.1684	0.2555	0.659	0.510	1.1834
Ghana – Côte D'Ivoire	2.3385	0.3183	7.347	< .001	10.3655
Guinée – Côte D'Ivoire	0.7207	0.2183	3.301	< .001	2.0559
Sénégal – Côte D'Ivoire	0.1726	0.2097	0.823	0.411	1.1884
EmployeeNumber:					
1 – 0	1.0152	0.1837	5.527	< .001	2.7598
1+ – 0	0.8882	0.2073	4.284	< .001	2.4308
BusinessType:					
Autre – Agriculture/aviculture	0.4893	0.2090	2.341	0.019	1.6311
Commerce – Agriculture/aviculture	0.9207	0.1874	4.912	< .001	2.5110
Elevage – Agriculture/aviculture	0.6233	0.2182	2.857	0.004	1.8650
Transport – Agriculture/aviculture	1.4307	0.2592	5.519	< .001	4.1815
FirstChoice:					
Oui – Non	0.8219	0.1515	5.425	< .001	2.2748
ReceivedIOMBusinessAdvice:					
Oui – Non	0.4314	0.1195	3.611	< .001	1.5393
AgeGroup:					
14-35 – 36+	0.4418	0.1419	3.115	0.002	1.5556
BusinessMembers:					
Moi uniquement – Moi et d'autres	0.4521	0.1572	2.877	0.004	1.5716
Gender:					
Masculin – Féminin	0.4903	0.1851	2.649	0.008	1.6328
CountryOfReturn:					
Algerie – Autre	0.2154	0.2068	1.041	0.298	1.2404
Lybie – Autre	0.5149	0.2028	2.539	0.011	1.6734
Maroc – Autre	0.3685	0.2057	1.791	0.073	1.4456
Niger – Autre	0.3860	0.2129	1.813	0.070	1.4711
Disabled:					
Oui – Non	-0.3616	0.2401	-1.506	0.132	0.6966

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
ReceivedSupportAs:					
En nature – En espèces	-0.2489	0.1806	-1.378	0.168	0.7797
Mixte – En espèces	-0.2799	0.1996	-1.402	0.161	0.7558
InterviewType:					
Terrain/bureau OIM – Par téléphone	0.1103	0.1337	0.825	0.409	1.1166
MigrationDuration	-0.0124	0.0243	-0.510	0.610	0.9877
CoronaImpactOnBusiness:					
Oui – Non	0.0298	0.1407	0.212	0.832	1.0302

Note. Estimates represent the log odds of "BusinessSuccess = High" vs. "BusinessSuccess = Low"

Collinearity Statistics

	VIF	Tolerance
Country	1.30	0.770
EmployeeNumber	1.08	0.922
BusinessType	1.13	0.888
FirstChoice	1.05	0.949
ReceivedIOMBusinessAdvice	1.17	0.854
AgeGroup	1.05	0.952
BusinessMembers	1.15	0.866
Gender	1.09	0.920
CountryOfReturn	1.08	0.924
Disabled	1.03	0.972
ReceivedSupportAs	1.32	0.757
InterviewType	1.24	0.808
MigrationDuration	1.04	0.960
CoronaImpactOnBusiness	1.19	0.837

Predictive Measures

Accuracy

0.687

Note. The cut-off value is set to 0.5

Model 2: Determinants of Business Profitability

Logistic regression was used to identify the determinants of business profitability. The dependent variable was Business Profitability (“L’entreprise vous permet -elle de gagner assez d’argent pour subvenir à vos besoins et à celle de votre famille ?”). Business Profitability initially had 4 possible outcomes (Figure 3), but was recoded to 2 outcomes (High or Low Business Profitability, Figure 4) to obtain a balanced sample with a sufficient number of observations in each category.

Figure 3

Proportion of outcomes of Business Profitability (N = 1,952)

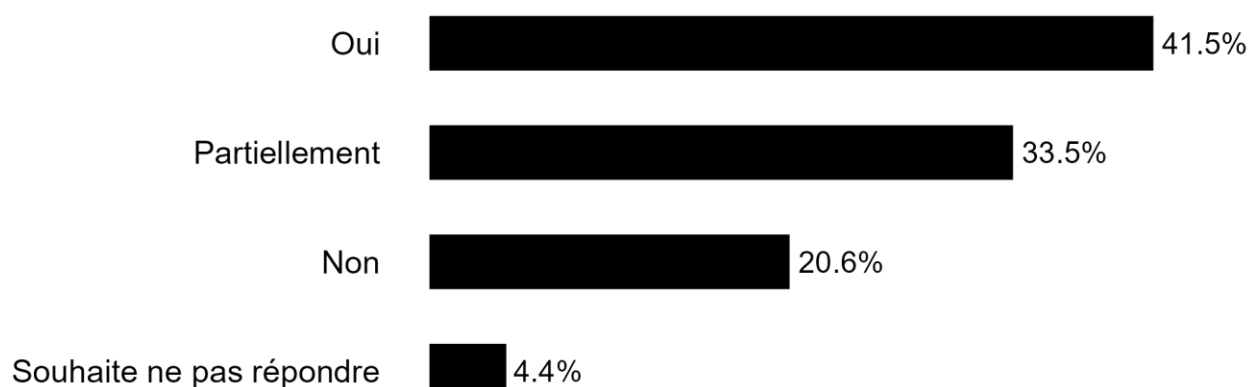


Figure 4

Proportion of outcomes of Business Profitability (recoded, N = 1,917)



Fourteen variables were used as predictors of Business Profitability. These predictors are listed in the Set of Tables 2. One variable, Business Has Employees, was not used due to collinearity with Employee Number (VIF = 3.940; Tolerance = 0.254).

As for the dependent variable, most independent variables were recoded to a smaller number of categories to achieve a sufficient number of observations in each category (see Appendix I on how these were recoded).

Results showed that the best predictors of Business Profitability are the country of interview, the business type, the number of employees in the business, whether the respondent received business advice from IOM, whether the business is run by the respondent or by the respondent and

associates, and whether the assistance type received was the first choice of the respondent (all $p < .001$). The full results are in Set of Tables 2.

These results are in line with those of Model 1, with respondents in Ghana, who run a business in transport, who received business advice from the IOM, who run their business on their own, and who received support of their first choice, more likely to report a High Business Profitability than their counterparts.

That said, there were also interesting differences. For example, men and younger respondents were *not* more likely to report a High Business Profitability compared to women and older respondents, contrary to what was found in Model 1.¹

This model has an accuracy of 70% (pseudo R-squared = 0.174), meaning that it correctly predicts whether respondents will have a High or Low Business Profitability in 70% of all cases (an improvement of 12 percentage points over the baseline).

Set of Tables 2
Binomial Logistic Regression for Business Profitability

Model Fit Measures

Model	R^2_{McF}	Overall Model Test		
		χ^2	df	p
1	0.174	454	26	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
Country	116.768	5	< .001
BusinessType	62.118	4	< .001
EmployeeNumber	33.653	2	< .001
ReceivedIOMBusinessAdvice	20.817	1	< .001
BusinessMembers	17.348	1	< .001
FirstChoice	13.107	1	< .001

¹ Although respondents who have 1 employee were more likely to report Business Success than respondents who have more than 1 employee, but less likely to report Business Profitability than respondents who have more than 1 employee, this difference was not statistically significant.

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
CountryOfReturn	8.639	4	0.071
Disabled	3.760	1	0.053
Gender	2.533	1	0.111
CoronaImpactOnBusiness	1.567	1	0.211
AgeGroup	1.432	1	0.231
InterviewType	1.291	1	0.256
MigrationDuration	1.086	1	0.297
ReceivedSupportAs	0.765	2	0.682

Model Coefficients - BusinessProfitability

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-2.8723	0.3975	-7.225	< .001	0.0566
Country:					
Autre – Côte D'Ivoire	-0.8114	0.2342	-3.464	< .001	0.4442
Burkina Faso – Côte D'Ivoire	-0.6062	0.2869	-2.112	0.035	0.5454
Ghana – Côte D'Ivoire	1.4433	0.2725	5.298	< .001	4.2347
Guinée – Côte D'Ivoire	0.7150	0.2147	3.331	< .001	2.0442
Sénégal – Côte D'Ivoire	0.3143	0.2146	1.465	0.143	1.3693
BusinessType:					
Autre – Agriculture/aviculture	0.1991	0.2108	0.944	0.345	1.2203
Commerce – Agriculture/aviculture	0.5811	0.1893	3.070	0.002	1.7881
Elevage – Agriculture/aviculture	-0.5390	0.2351	-2.293	0.022	0.5833
Transport – Agriculture/aviculture	1.1347	0.2467	4.599	< .001	3.1102
EmployeeNumber:					
1 – 0	0.5942	0.1670	3.557	< .001	1.8116
1+ – 0	1.0079	0.1979	5.092	< .001	2.7397
ReceivedIOMBusinessAdvice:					
Oui – Non	0.5726	0.1263	4.535	< .001	1.7729

Model Coefficients - BusinessProfitability

Predictor	Estimate	SE	Z	p	Odds ratio
BusinessMembers:					
Moi uniquement – Moi et d'autres	0.6414	0.1560	4.111	< .001	1.8991
FirstChoice:					
Oui – Non	0.6170	0.1740	3.545	< .001	1.8533
CountryOfReturn:					
Algerie – Autre	0.4462	0.2170	2.056	0.040	1.5623
Lybie – Autre	0.1542	0.2127	0.725	0.468	1.1668
Maroc – Autre	-0.0302	0.2140	-0.141	0.888	0.9703
Niger – Autre	0.3419	0.2212	1.546	0.122	1.4076
Disabled:					
Oui – Non	-0.5176	0.2736	-1.892	0.058	0.5959
Gender:					
Masculin – Féminin	0.3056	0.1936	1.578	0.115	1.3574
CoronaImpactOnBusiness:					
Oui – Non	0.1712	0.1366	1.253	0.210	1.1867
AgeGroup:					
14-35 – 36+	0.1719	0.1440	1.193	0.233	1.1875
InterviewType:					
Terrain/bureau OIM – Par téléphone	-0.1541	0.1357	-1.136	0.256	0.8572
MigrationDuration	-0.0259	0.0249	-1.040	0.298	0.9744
ReceivedSupportAs:					
En nature – En espèces	-0.0863	0.1867	-0.462	0.644	0.9173
Mixte – En espèces	-0.1898	0.2171	-0.874	0.382	0.8272

Note. Estimates represent the log odds of "BusinessProfitability = High" vs. "BusinessProfitability = Low"

Collinearity Statistics

	VIF	Tolerance
Country	1.29	0.778

Collinearity Statistics

	VIF	Tolerance
BusinessType	1.10	0.908
EmployeeNumber	1.08	0.925
ReceivedIOMBusinessAdvice	1.21	0.830
BusinessMembers	1.14	0.875
FirstChoice	1.04	0.961
CountryOfReturn	1.09	0.916
Disabled	1.03	0.973
Gender	1.07	0.931
CoronaImpactOnBusiness	1.18	0.849
AgeGroup	1.06	0.941
InterviewType	1.18	0.844
MigrationDuration	1.05	0.953
ReceivedSupportAs	1.28	0.780

Prediction

Predictive Measures

Accuracy
0.699

Note. The cut-off value is set to 0.5

Model 3: Effect of Training on Business Success

Model 3 is similar to Model 1 with two important differences. First, Model 3 utilizes a different data set, which is based on both Kobo data and Mimosa data. As explained in the document `data_sets_summary.doc`, this dataset possibly contains errors, and all results of Model 3 should be used with caution.

Second, Model 3 utilizes the same independent variables as Model 1 to predict Business Success, except that variables related to training were added.² These variables were:

Name in this document	Name in Mimosa/Kobo	Definition
Training Type	Type de formation (Mimosa)	The type of training received by the respondent
Training Duration	Duree formation (Mimosa)	The duration of the training, in days
Assistance Duration	Date de reception de la reintegration (Mimosa) <u>and</u> Date de l'enquête (Kobo)	The time lapse between the reception of reintegration support and interview date, in days
Return to Reintegration	ArrivalDate_Mimosa (Mimosa) <u>and</u> Date de reception de la reintegration (Mimosa)	The time lapse between the arrival date and the reception of reintegration support, in days

The results were similar to those of Model 1, with Country, Business Type, First Choice, and Employee Number being significant predictors of Business Success, see Set of Tables 3.

Regarding the training variables, results showed that Training Type is a significant predictor of Business Success ($p < .001$), whereas Training Type ($p = 0.055$) and Assistance Duration ($p = 0.078$) are borderline predictors, and Return to Reintegration is not a significant predictor.

In particular, respondents who received training in business or management are nearly 2 times more likely to report a High Business Success than those who did not receive any training. That said, respondents who received any other training (i.e., except business or management) are *not* more likely to report a High Business Success than those who received no training at all, and are *less* likely to report a High Business Success than those who received business or management training.

² These variables on training were available in Mimosa, which is why we use this slightly different dataset.

Concerning Training Duration and Assistance duration, results are harder to interpret. Indeed, results suggest that the longer the training or assistance, the less likely the respondents are to report a High Business Success. This is counterintuitive, but might be explained by the fact that except training in business or management, other training does not mean more business success, as we have just seen above. Since respondents who did not received training at all were all coded as 0 days of training, and did slightly better than those who did receive other training, we might indeed expect a possibly negative relationship between Training Duration and Business Success when all respondents are analysed together.

To test this possibility, an alternative model was fitted with only the respondents who received training (N=561). Assistance Duration was no longer significant, and Training Duration was significant at the $p < 0.01$ level, with again a negative relationship between Training Duration and Business Success. Yet another model, in which only respondents who received Business or management training were included (N=346), found similar results (Training Duration significant at $p < 0.01$, and a negative relationship).

Together, these results suggest that at best, Training Duration has no positive impact on Business Success, and at worst, that longer training programmes have a negative impact on Business Success, when controlling for all other factors. Alternatively, Training Duration might be biased in another way, as we mentioned above.

Set of Tables 3

Binomial Logistic Regression for Business Profitability (Training variables)

Model Fit Measures

Model	R^2_{McF}	Overall Model Test		
		χ^2	df	p
1	0.150	378	30	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
Country	120.1641	5	< .001
BusinessType	40.4284	4	< .001
FirstChoice	23.7715	1	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
EmployeeNumber	32.8440	2	< .001
TrainingType	20.7435	2	< .001
AgeGroup	8.1632	1	0.004
ReceivedIOMBusinessAdvice	7.3471	1	0.007
BusinessMembers	5.8210	1	0.016
CountryOfReturn	9.2952	4	0.054
TrainingDuration	3.6800	1	0.055
AssistanceDuration	3.1124	1	0.078
InterviewType	2.4675	1	0.116
Gender	1.7421	1	0.187
ReceivedSupportAs	1.6621	2	0.436
CoronalImpactOnBusiness	0.4167	1	0.519
MigrationDuration	0.2375	1	0.626
ReturnToReintegration	0.0105	1	0.919

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-3.4185	0.4866	-7.025	< .001	0.0328
Country:					
Burkina Faso – Autre	0.7223	0.2739	2.637	0.008	2.0591
Côte D'Ivoire – Autre	0.6340	0.2533	2.503	0.012	1.8852
Ghana – Autre	2.8142	0.3187	8.829	< .001	16.6801
Guinée – Autre	1.3733	0.2430	5.652	< .001	3.9483
Sénégal – Autre	0.6077	0.2024	3.003	0.003	1.8362
BusinessType:					
Autre – Agriculture/aviculture	0.3877	0.2173	1.784	0.074	1.4736
Commerce – Agriculture/aviculture	0.9393	0.1957	4.800	< .001	2.5581
Elevage – Agriculture/aviculture	0.6889	0.2246	3.067	0.002	1.9915

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
Transport – Agriculture/aviculture	1.3733	0.2693	5.099	< .001	3.9483
FirstChoice:					
Oui – Non	0.7470	0.1548	4.825	< .001	2.1108
EmployeeNumber:					
1 – 0	0.8657	0.1894	4.570	< .001	2.3767
1+ – 0	0.8485	0.2103	4.034	< .001	2.3361
TrainingType:					
Business/management – None	0.6533	0.1855	3.522	< .001	1.9219
Other – None	-0.3170	0.2021	-1.569	0.117	0.7284
AgeGroup:					
14-35 – 36+	0.4231	0.1486	2.846	0.004	1.5267
ReceivedIOMBusinessAdvice:					
Oui – Non	0.3444	0.1274	2.703	0.007	1.4112
BusinessMembers:					
Moi uniquement – Moi et d'autres	0.3900	0.1620	2.407	0.016	1.4770
CountryOfReturn:					
Algerie – Autre	0.3114	0.2189	1.423	0.155	1.3654
Lybie – Autre	0.6204	0.2167	2.862	0.004	1.8596
Maroc – Autre	0.3866	0.2223	1.739	0.082	1.4720
Niger – Autre	0.4087	0.2230	1.833	0.067	1.5049
TrainingDuration	-0.0421	0.0209	-2.016	0.044	0.9588
AssistanceDuration	-6.71e-4	3.83e-4	-1.751	0.080	0.9993
InterviewType:					
Terrain/bureau OIM – Par téléphone	0.2148	0.1370	1.568	0.117	1.2396
Gender:					
Masculin – Féminin	0.2977	0.2257	1.319	0.187	1.3468
ReceivedSupportAs:					
En nature – En espèces	-0.1449	0.1880	-0.771	0.441	0.8651
Mixte – En espèces	-0.2645	0.2069	-1.279	0.201	0.7676

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
CoronaImpactOnBusiness:					
Oui – Non	0.0961	0.1490	0.645	0.519	1.1009
MigrationDuration	-0.0125	0.0256	-0.487	0.626	0.9876
ReturnToReintegration	-1.60e-5	1.57e-4	-0.102	0.919	1.0000

Note. Estimates represent the log odds of "BusinessSuccess = High" vs. "BusinessSuccess = Low"

Collinearity Statistics

	VIF	Tolerance
Country	1.34	0.746
BusinessType	1.14	0.877
FirstChoice	1.06	0.945
EmployeeNumber	1.09	0.918
TrainingType	1.27	0.788
AgeGroup	1.05	0.954
ReceivedIOMBusinessAdvice	1.22	0.819
BusinessMembers	1.16	0.859
CountryOfReturn	1.10	0.909
TrainingDuration	1.32	0.758
AssistanceDuration	1.12	0.889
InterviewType	1.24	0.807
Gender	1.07	0.930
ReceivedSupportAs	1.33	0.750
CoronaImpactOnBusiness	1.25	0.799
MigrationDuration	1.04	0.960
ReturnToReintegration	1.21	0.825

Prediction

Predictive Measures

Accuracy

0.697

Note. The cut-off value is set to 0.5

Model 4: Determinants of Future Intentions to Migrate

Logistic regression was used to identify the determinants of future intentions to migrate. The dependent variable was Would Migrate Again (“Avez-vous déjà planifié de migrer de nouveau ?”). Would Migrate Again initially had 4 possible outcomes (Figure 5), but was recoded to 2 outcomes (Yes or No, Figure 5). Despite recoding, this dependent variable is still quite imbalanced, with less than 200 respondents in the least common outcome (Yes), meaning that results should be interpreted with caution.

Figure 5

Proportion of outcomes of Would Migrate Again (N = 2,015)

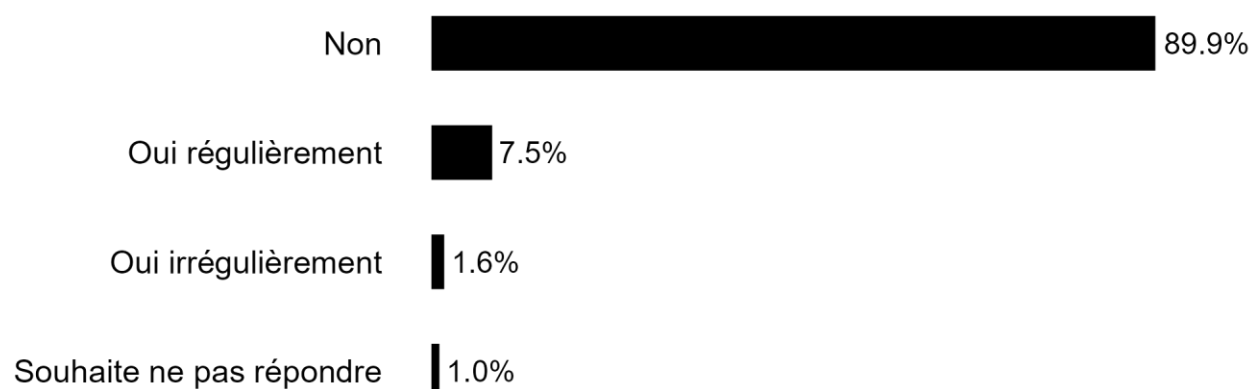


Figure 6

Proportion of outcomes of Would Migrate Again (recoded, N = 1,917)



Fourteen variables were used as predictors of Would Migrate Again. These predictors are listed in the Set of Tables 4. One variable, Business Has Employees, was not used due to collinearity with Employee Number (VIF = 3.070; Tolerance = 0.325).

As for the dependent variable, most independent variables were recoded to a smaller number of categories to achieve a sufficient number of observations in each category (see Appendix I on how these were recoded).

Results showed that the best predictors of Would Migrate Again are the country of interview ($p < 0.001$), where the respondent is returning from ($p < 0.01$), whether the respondents are running their business on their own or with associates ($p < 0.01$), and surprisingly, the interview type ($p < 0.01$). The full results are in Set of Tables 4.

Specifically, after controlling for all other factors, respondents based in Burkina Faso are the least likely to report planning to migrate again, whereas respondents based in Guinea are the most likely to report planning to migrate again (except respondents from all Other countries, though). Furthermore, respondents returning from Libya are the least likely to plan migrating again, whereas respondents returning from Morocco are the most likely to plan migrating again.

Respondents who run their business with other people are 1.7 times more likely to planning to migrate again than respondents who run their business on their own (which makes sense, given that businesses run by the respondent alone also tend to be more successful, as we have seen above), and respondents interviewed in the field or in an IOM office are 1.6 times more likely to report planning to migrate again than those interviewed on the phone.

No other predictor was statistically significant, and it has to be noted that this model explains less variance than all previous models (pseudo R-squared = 0.0677), perhaps because of sample imbalance. In sum, the main finding about future intentions to migrate is that it is determined mainly by where the respondents are based and where they are coming from (Libya is a case in point), as well as other factors that are simply not captured by this model.

Set of Tables 4
Binomial Logistic Regression for Would Migrate Again

Model Fit Measures

Model	R^2_{McF}	Overall Model Test		
		χ^2	df	p
1	0.0677	85.4	26	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
Country	24.5558	5	< .001
CountryOfReturn	14.7452	4	0.005

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
BusinessMembers	7.1933	1	0.007
InterviewType	7.0308	1	0.008
FirstChoice	2.1615	1	0.142
ReceivedSupportAs	2.8659	2	0.239
ReceivedIOMBusinessAdvice	0.7719	1	0.380
EmployeeNumber	1.5908	2	0.451
Gender	0.5096	1	0.475
Disabled	0.3548	1	0.551
CoronaImpactOnBusiness	0.2160	1	0.642
BusinessType	2.1557	4	0.707
BusinessHasEmployees	0.0946	1	0.758
MigrationDuration	0.0409	1	0.840

Model Coefficients - WouldMigrateAgain

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-4.10030	0.8022	-5.111	< .001	0.0166
Country:					
Autre – Burkina Faso	1.65606	0.4764	3.476	< .001	5.2387
Côte D'Ivoire – Burkina Faso	1.33937	0.5034	2.661	0.008	3.8166
Ghana – Burkina Faso	0.10881	0.6265	0.174	0.862	1.1149
Guinée – Burkina Faso	1.63960	0.4825	3.398	< .001	5.1531
Sénégal – Burkina Faso	1.20401	0.4948	2.433	0.015	3.3335
CountryOfReturn:					
Algerie – Lybie	0.43928	0.2573	1.707	0.088	1.5516
Autre – Lybie	0.88911	0.2972	2.991	0.003	2.4330
Maroc – Lybie	0.90277	0.2793	3.232	0.001	2.4664
Niger – Lybie	0.22404	0.2797	0.801	0.423	1.2511
BusinessMembers:					

Model Coefficients - WouldMigrateAgain

Predictor	Estimate	SE	Z	p	Odds ratio
Moi et d'autres – Moi uniquement	0.57009	0.2093	2.724	0.006	1.7684
InterviewType:					
Terrain/bureau OIM – Par téléphone	0.51449	0.1920	2.679	0.007	1.6728
FirstChoice:					
Oui – Non	-0.32450	0.2169	-1.496	0.135	0.7229
ReceivedSupportAs:					
En nature – En espèces	0.47739	0.2894	1.650	0.099	1.6119
Mixte – En espèces	0.39118	0.3405	1.149	0.251	1.4787
ReceivedIOMBusinessAdvice:					
Oui – Non	0.16163	0.1842	0.877	0.380	1.1754
EmployeeNumber:					
1 – 0	-0.73216	0.6152	-1.190	0.234	0.4809
1+ – 0	-0.43515	0.6198	-0.702	0.483	0.6472
Gender:					
Masculin – Féminin	0.20060	0.2853	0.703	0.482	1.2221
Disabled:					
Oui – Non	0.22242	0.3657	0.608	0.543	1.2491
CoronalImpactOnBusiness:					
Oui – Non	0.09912	0.2127	0.466	0.641	1.1042
BusinessType:					
Autre – Agriculture/aviculture	-0.09205	0.2931	-0.314	0.754	0.9121
Commerce – Agriculture/aviculture	-0.33794	0.2632	-1.284	0.199	0.7132
Elevage – Agriculture/aviculture	-0.20554	0.3251	-0.632	0.527	0.8142
Transport – Agriculture/aviculture	-0.24846	0.3542	-0.702	0.483	0.7800
BusinessHasEmployees:					
Non – Autre	-0.17808	0.5686	-0.313	0.754	0.8369
MigrationDuration	0.00701	0.0345	0.203	0.839	1.0070

Note. Estimates represent the log odds of "WouldMigrateAgain = Yes" vs. "WouldMigrateAgain = No"

Collinearity Statistics

	VIF	Tolerance
Country	1.28	0.780
CountryOfReturn	1.09	0.913
BusinessMembers	1.18	0.847
InterviewType	1.17	0.852
FirstChoice	1.08	0.930
ReceivedSupportAs	1.26	0.796
ReceivedIOMBusinessAdvice	1.17	0.853
EmployeeNumber	1.79	0.558
Gender	1.08	0.927
Disabled	1.04	0.961
CoronaImpactOnBusiness	1.19	0.840
BusinessType	1.14	0.879
BusinessHasEmployees	3.06	0.327
MigrationDuration	1.03	0.971

Predictive Measures

Accuracy

0.898

Note. The cut-off value is set to 0.5

Reintegration Sustainability Survey (RSS)

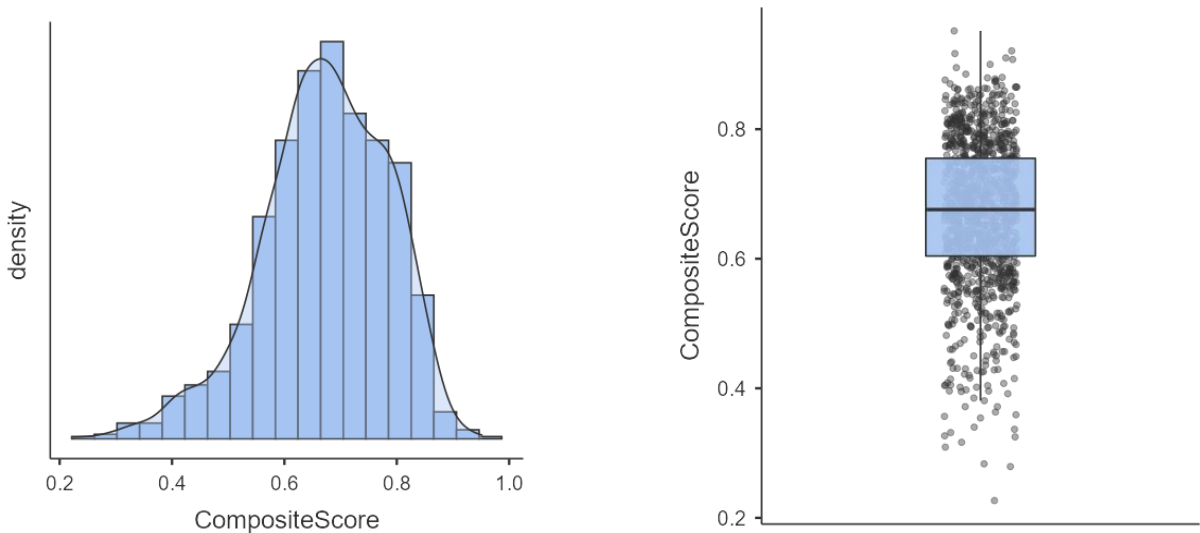
Model 5: Determinants of Sustainable Reintegration (Composite Score)

Multiple linear regression was used to identify the determinants of Sustainable Reintegration. The dependent variable was the Composite Score of the RSS scale. Composite Score was approximately normally distributed, see Table 1 and Figure 7 below.

Table 1
Descriptive Statistics for Composite Score of Reintegration (N = 1,196)

Mean	0.672
Median	0.676
Standard deviation	0.113
Minimum	0.227
Maximum	0.952

Figure 7
Distribution of Composite Score (N = 1,196)



Fifteen variables were used as predictors of Composite Score. These predictors are listed in the Set of Tables 5. Ten of them were categorical variables, whereas 5 of them were continuous

variables. As usual, some of the categorical variables were recoded to a smaller number of categories to achieve a sufficient number of observations in each category (see Appendix I on how these were recoded).

Results showed that 6 variables were significant predictors of Composite Score, with the strongest predictors being MB Support Duration, Sex, Return Country, and Origin Country (all $p < 0.001$), followed by Financial Services ($p < 0.01$), and the Form of Business Assistance ($p < 0.05$).

Specifically, MB Support Duration seems to have a positive impact on sustainable reintegration (the longer the support duration, the higher the Composition Score). Furthermore, men have a significantly higher Composite Score than women, and respondents who received Financial Services have a significantly higher Composite Score than those who did not.

Finally, after controlling for all other variables, respondents who returned from Niger have the lowest Composite Score, whereas respondents whose origin country is Tchad have the lowest Composite Score. Although the Form of Business Assistance was a significant predictor, there are no significant differences between CAS and KND (or CAS, KND); the only significant is that respondents engaged in any of CAS or KND have a higher Composite Score than respondents whose Business Assistance Form is Unknow.

It is interesting to note that except for Financial Services, no other form of assistance seem to positively influence the Composite Score.

Set of Tables 5
Multiple Linear Regression for Composite RSS Score

Model Fit Measures

Model	R ²	Overall Model Test			
		F	df1	df2	p
1	0.179	11.6	22	1173	< .001

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	p
MBSupportDuration	0.24766	1	0.24766	23.1369	< .001
Sex	0.24448	1	0.24448	22.8395	< .001
return_country	0.42019	3	0.14006	13.0848	< .001

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	p
origin_country	0.34853	4	0.08713	8.1400	< .001
FinancialServices	0.10912	1	0.10912	10.1945	0.001
MicrobusinessFormOfAssistance	0.09943	3	0.03314	3.0963	0.026
MedicalSupport	0.03604	1	0.03604	3.3673	0.067
migration_duration	0.02888	1	0.02888	2.6978	0.101
MaterialAssistance	0.01905	1	0.01905	1.7794	0.182
PsychosocialSupport	0.00914	1	0.00914	0.8536	0.356
SocialSupport	0.00899	1	0.00899	0.8396	0.360
Training	0.00548	1	0.00548	0.5120	0.474
TrainingDuration	0.00172	1	0.00172	0.1604	0.689
MBAssistanceDuration	6.12e-4	1	6.12e-4	0.0572	0.811
age	5.83e-4	1	5.83e-4	0.0545	0.815
Residuals	12.55601	1173	0.01070		

Note. Type 3 sum of squares

Model Coefficients - CompositeScore

Predictor	Estimate	SE	t	p
Intercept ^a	0.42405	0.03435	12.344	< .001
MBSupportDuration	2.56e-4	5.33e-5	4.810	< .001
sex:				
Homme – Femme	0.04435	0.00928	4.779	< .001
return_country:				
Algérie – Niger	0.03541	0.01144	3.096	0.002
Autre – Niger	0.04967	0.00943	5.265	< .001
Libye – Niger	0.05224	0.00962	5.433	< .001
origin_country:				
Autre – Tchad	0.02314	0.01351	1.712	0.087

Model Coefficients - CompositeScore

Predictor	Estimate	SE	t	p
Guinee Conakry – Tchad	0.00762	0.01996	0.382	0.703
Mali – Tchad	0.06819	0.02285	2.984	0.003
Niger – Tchad	0.08385	0.01777	4.719	< .001
FinancialServices:				
No – Yes	0.03082	0.00965	3.193	0.001
MicrobusinessFormOfAssistance:				
CAS – Unknown	0.04047	0.01723	2.349	0.019
CAS, KND – Unknown	0.03986	0.02134	1.867	0.062
KND – Unknown	0.04647	0.01536	3.025	0.003
MedicalSupport:				
No – Yes	0.01758	0.00958	1.835	0.067
migration_duration	-8.98e-4	5.47e-4	-1.642	0.101
MaterialAssistance:				
No – Yes	0.02952	0.02213	1.334	0.182
PsychosocialSupport:				
Yes – No	0.00705	0.00763	0.924	0.356
SocialSupport:				
Yes – No	0.01584	0.01729	0.916	0.360
Training:				
Yes – No	0.00588	0.00822	0.716	0.474
TrainingDuration	2.11e-4	5.27e-4	0.401	0.689
MBAssistanceDuration	-1.22e-5	5.11e-5	-0.239	0.811
age	9.63e-5	4.13e-4	0.233	0.815

^a Represents reference level

Collinearity Statistics

	VIF	Tolerance
MBSupportDuration	1.51	0.661

Collinearity Statistics

	VIF	Tolerance
sex	1.08	0.928
return_country	1.23	0.811
origin_country	1.64	0.608
FinancialServices	1.46	0.684
MicrobusinessFormOfAssistance	1.43	0.698
MedicalSupport	1.18	0.849
migration_duration	1.17	0.857
MaterialAssistance	2.48	0.404
PsychosocialSupport	1.23	0.815
SocialSupport	2.15	0.466
Training	1.37	0.728
TrainingDuration	1.14	0.876
MBAssistanceDuration	1.40	0.716
age	1.09	0.919

Model 6: Determinants of Sustainable Reintegration (Economic Score)

Appendix I: Interaction of Country and Business Type for Model 1

Model Fit Measures

Model	Deviance	AIC	R^2_{McF}	Overall Model Test		
				χ^2	df	p
1	2204	2298	0.158	412	46	< .001

Omnibus Likelihood Ratio Tests

Predictor	χ^2	df	p
Country	16.840	5	0.005
EmployeeNumber	43.057	2	< .001
BusinessType	19.239	4	< .001
FirstChoice	26.570	1	< .001
ReceivedIOMBusinessAdvice	12.371	1	< .001
AgeGroup	9.506	1	0.002
CountryOfReturn	7.620	4	0.107
BusinessMembers	6.812	1	0.009
Gender	7.832	1	0.005
ReceivedSupportAs	3.011	2	0.222
Disabled	3.055	1	0.081
InterviewType	0.575	1	0.448
MigrationDuration	0.256	1	0.613
CoronaImpactOnBusiness	0.119	1	0.730
Country * BusinessType	31.278	20	0.052

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
Intercept	-2.9926	0.4749	- 6.30161	< .001	0.0502
Country:					
Autre – Côte D'Ivoire	0.8206	0.6642	1.23551	0.217	2.2719
Burkina Faso – Côte D'Ivoire	0.8599	0.6855	1.25428	0.210	2.3628
Ghana – Côte D'Ivoire	3.5232	1.1304	3.11681	0.002	33.8938
Guinée – Côte D'Ivoire	1.0237	1.4928	0.68578	0.493	2.7835
Sénégal – Côte D'Ivoire	0.7436	0.4419	1.68272	0.092	2.1035
EmployeeNumber:					
1 – 0	1.0172	0.1867	5.44691	< .001	2.7654
1+ – 0	0.9025	0.2113	4.27094	< .001	2.4657
BusinessType:					
Autre – Agriculture/aviculture	0.9545	0.4707	2.02769	0.043	2.5974
Commerce – Agriculture/aviculture	1.5809	0.4161	3.79899	< .001	4.8595
Elevage – Agriculture/aviculture	0.8992	0.6254	1.43782	0.150	2.4577
Transport – Agriculture/aviculture	2.6443	1.1562	2.28709	0.022	14.0739
FirstChoice:					
Oui – Non	0.7828	0.1541	5.08132	< .001	2.1875
ReceivedIOMBusinessAdvice:					
Oui – Non	0.4296	0.1226	3.50380	< .001	1.5367
AgeGroup:					
36+ – 14-35	-0.4390	0.1430	- 3.06889	0.002	0.6447
CountryOfReturn:					
Autre – Algerie	-0.2255	0.2106	- 1.07039	0.284	0.7982
Lybie – Algerie	0.2809	0.1597	1.75855	0.079	1.3243
Maroc – Algerie	0.1460	0.1793	0.81449	0.415	1.1572
Niger – Algerie	0.1553	0.1587	0.97867	0.328	1.1680

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
BusinessMembers:					
Moi uniquement – Moi et d'autres	0.4138	0.1590	2.60229	0.009	1.5126
Gender:					
Masculin – Féminin	0.5170	0.1857	2.78464	0.005	1.6771
ReceivedSupportAs:					
En nature – En espèces	-0.2789	0.1844	-1.51218	0.130	0.7566
Mixte – En espèces	-0.3017	0.2046	-1.47451	0.140	0.7396
Disabled:					
Oui – Non	-0.4260	0.2452	-1.73688	0.082	0.6531
InterviewType:					
Terrain/bureau OIM – Par téléphone	0.1024	0.1352	0.75757	0.449	1.1078
MigrationDuration	-0.0124	0.0245	-0.50593	0.613	0.9877
CoronaImpactOnBusiness:					
Oui – Non	0.0491	0.1423	0.34512	0.730	1.0504
Country * BusinessType:					
(Autre – Côte D'Ivoire) * (Autre – Agriculture/aviculture)	-0.6576	0.7771	-0.84616	0.397	0.5181
(Burkina Faso – Côte D'Ivoire) * (Autre – Agriculture/aviculture)	-0.4685	0.8666	-0.54064	0.589	0.6259
(Ghana – Côte D'Ivoire) * (Autre – Agriculture/aviculture)	-1.2053	1.2183	-0.98938	0.322	0.2996
(Guinée – Côte D'Ivoire) * (Autre – Agriculture/aviculture)	-0.7103	1.5556	-0.45661	0.648	0.4915
(Sénégal – Côte D'Ivoire) * (Autre – Agriculture/aviculture)	-0.4844	0.5603	-0.86456	0.387	0.6160

Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
(Autre – Côte D'Ivoire) * (Commerce – Agriculture/aviculture)	-1.3086	0.6984	- 1.87359	0.061	0.2702
(Burkina Faso – Côte D'Ivoire) * (Commerce – Agriculture/aviculture)	-0.9320	0.7555	- 1.23353	0.217	0.3938
(Ghana – Côte D'Ivoire) * (Commerce – Agriculture/aviculture)	-1.6919	1.1899	- 1.42189	0.155	0.1842
(Guinée – Côte D'Ivoire) * (Commerce – Agriculture/aviculture)	-0.4299	1.5228	- 0.28232	0.778	0.6506
(Sénégal – Côte D'Ivoire) * (Commerce – Agriculture/aviculture)	-0.6117	0.4845	- 1.26259	0.207	0.5424
(Autre – Côte D'Ivoire) * (Elevage – Agriculture/aviculture)	-1.3738	0.9885	- 1.38978	0.165	0.2531
(Burkina Faso – Côte D'Ivoire) * (Elevage – Agriculture/aviculture)	-0.4614	0.8568	- 0.53850	0.590	0.6304
(Ghana – Côte D'Ivoire) * (Elevage – Agriculture/aviculture)	12.3371	275.0595	0.04485	0.964	228000.4408
(Guinée – Côte D'Ivoire) * (Elevage – Agriculture/aviculture)	-0.0214	1.7283	- 0.01236	0.990	0.9789
(Sénégal – Côte D'Ivoire) * (Elevage – Agriculture/aviculture)	-0.2650	0.6978	- 0.37975	0.704	0.7672
(Autre – Côte D'Ivoire) * (Transport – Agriculture/aviculture)	-0.7792	1.4446	- 0.53939	0.590	0.4588
(Burkina Faso – Côte D'Ivoire) * (Transport – Agriculture/aviculture)	14.3192	1455.3981	0.00984	0.992	1.65e+6
(Ghana – Côte D'Ivoire) * (Transport – Agriculture/aviculture)	-1.6862	1.8700	- 0.90171	0.367	0.1852
(Guinée – Côte D'Ivoire) * (Transport – Agriculture/aviculture)	-0.8538	1.8727	- 0.45592	0.648	0.4258
(Sénégal – Côte D'Ivoire) * (Transport – Agriculture/aviculture)	-2.4466	1.2368	- 1.97815	0.048	0.0866

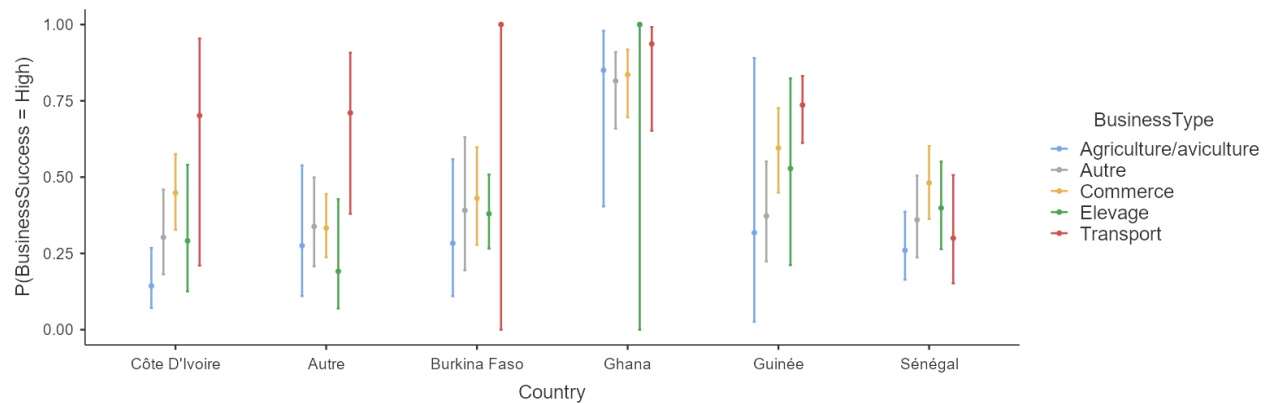
Model Coefficients - BusinessSuccess

Predictor	Estimate	SE	Z	p	Odds ratio
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Note. Estimates represent the log odds of "BusinessSuccess = High" vs. "BusinessSuccess = Low"

Estimated Marginal Means

Country * BusinessType



Note. Results for Burkina Faso for transport should be ignore since only 1 respondent was involved in transport.

Estimated Marginal Means - Country * BusinessType

BusinessType	Country	Probability	SE	95% Confidence Interval	
				Lower	Upper
Agriculture/aviculture	Côte D'Ivoire	0.143	0.0491	0.0710	0.268
	Autre	0.275	0.1141	0.1102	0.538
	Burkina Faso	0.283	0.1205	0.1099	0.558
	Ghana	0.850	0.1381	0.4039	0.979
	Guinée	0.318	0.3159	0.0261	0.890
	Sénégal	0.260	0.0573	0.1641	0.387
Autre	Côte D'Ivoire	0.303	0.0722	0.1817	0.459
	Autre	0.338	0.0762	0.2078	0.499
	Burkina Faso	0.391	0.1187	0.1947	0.631
	Ghana	0.815	0.0634	0.6592	0.910
	Guinée	0.373	0.0866	0.2233	0.551
	Sénégal	0.360	0.0699	0.2370	0.505

Estimated Marginal Means - Country * BusinessType

BusinessType	Country	Probability	SE	95% Confidence Interval	
				Lower	Upper
Commerce	Côte D'Ivoire	0.448	0.0646	0.3275	0.576
	Autre	0.333	0.0535	0.2372	0.445
	Burkina Faso	0.431	0.0845	0.2779	0.598
	Ghana	0.835	0.0558	0.6962	0.918
	Guinée	0.595	0.0725	0.4493	0.726
	Sénégal	0.481	0.0622	0.3627	0.602
Elevage	Côte D'Ivoire	0.291	0.1107	0.1256	0.540
	Autre	0.191	0.0908	0.0696	0.428
	Burkina Faso	0.380	0.0630	0.2660	0.508
	Ghana	1.000	8.66e-5	2.22e-16	1.000
	Guinée	0.528	0.1814	0.2119	0.823
	Sénégal	0.399	0.0753	0.2638	0.551
Transport	Côte D'Ivoire	0.702	0.2327	0.2102	0.954
	Autre	0.710	0.1457	0.3797	0.908
	Burkina Faso	1.000	1.58e-4	2.22e-16	1.000
	Ghana	0.937	0.0626	0.6519	0.991
	Guinée	0.736	0.0565	0.6120	0.831
	Sénégal	0.300	0.0936	0.1518	0.507

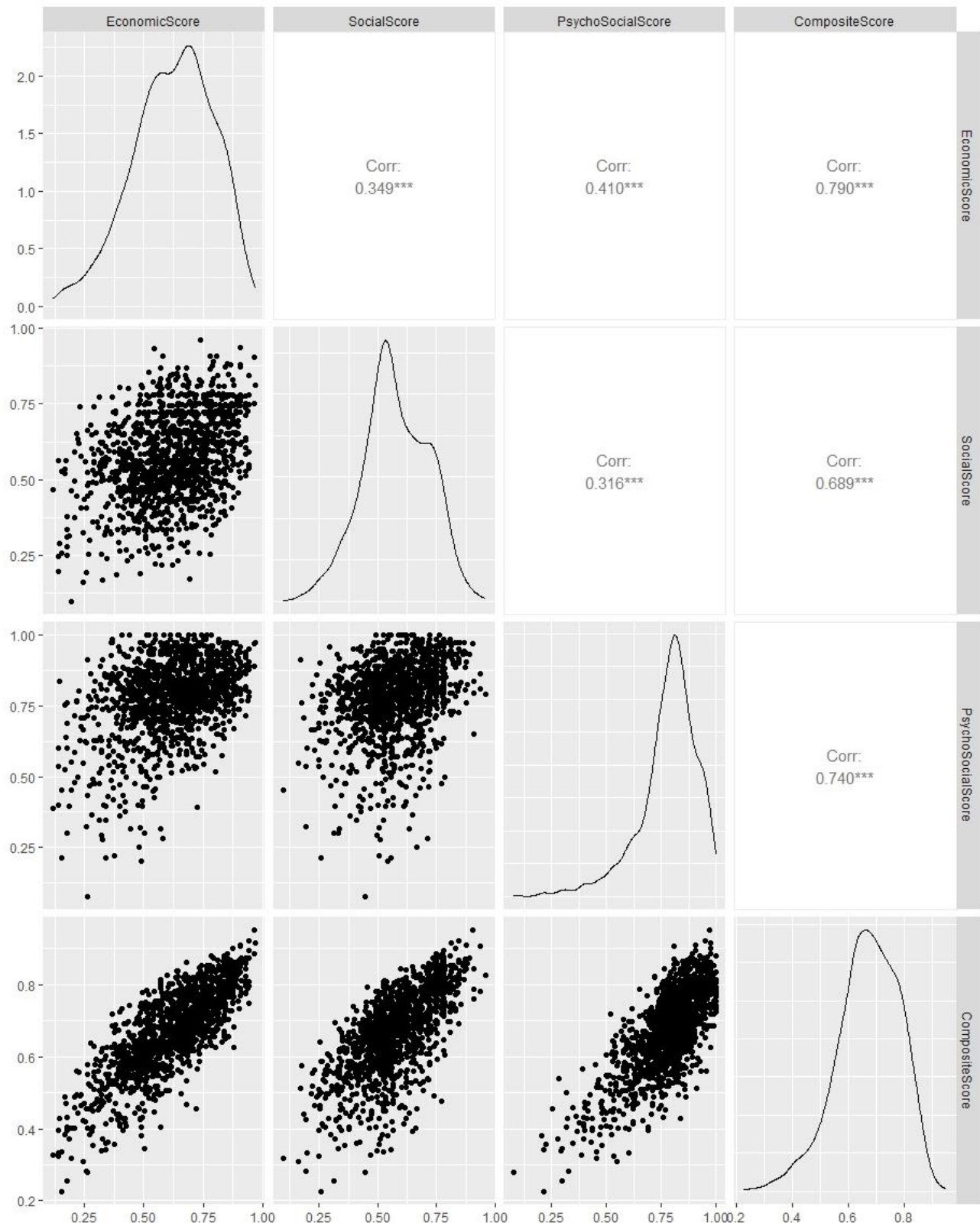
Predictive Measures

Accuracy

0.694

Note. The cut-off value is set to 0.5

Appendix II: Correlations Between RSS Scores



Correlation Matrix

		Economic Score	Social Score	PsychoSocial Score	Composite Score
Economic Score	Pearson's r	—			
	p-value	—			
Social Score	Pearson's r	0.349	—		
	p-value	< .001	—		
PsychoSocial Score	Pearson's r	0.410	0.316	—	
	p-value	< .001	< .001	—	
Composite Score	Pearson's r	0.790	0.689	0.740	—
	p-value	< .001	< .001	< .001	—