Uses of the perfect infinitive

The perfect infinitive has the following structure: (to) have + past participle.

Examples are: to have missed, to have written, to have worked, to have left etc.

Perfect infinitives can have the same kind of meaning as perfect or past tenses.

I am glad to have found a new job. (= I am glad that I have found a new job.)
She was sorry to have missed the concert. (= She was sorry that she had missed the concert.)
You seem to have annoyed him. (= It seems that you have annoyed him.)
The perfect infinitive is often used after the modal auxiliary verbs could, would, might, ought, should and needn’t to talk about unreal situations.
You should have asked my permission before going out. (The person didn’t.)
She should have discussed the matter with him. (She didn’t discuss the matter with him.)
I would have gone to university, if I had passed my exam. (I didn’t pass my exam.)
You shouldn’t have provoked him. (You provoked him.)
We needn’t have waited for his approval. (We waited for his approval.)

Notes

The structure modal auxiliary + perfect infinitive is not always used to talk about unreal past situations. It can also be used to express certainty.

She should have arrived by now.
They will have reached the station by now.